Clinical Lecture ON PLEURITIC EFFUSION.

Delivered at the Liverpool Royal Infirmary,

BY A. T. H. WATERS, M.D., F.R.C.P.,
PHYSICIAN TO THE INFIRMARY.

GENTLEMEN,—I wish to call your attention to-day to some cases of pleuritic effusion which have been in my wards, and to make them the subject of some remarks on the affection. I shall confine myself for the most part to those points which I consider of the greatest practical importance, and first I will refer to the subject of diagnosis.

It may, perhaps, appear to you to be very easy to diagnose the existence of fluid in the pleural cavity—to differentiate between liquid and solid matter within the cavity of the chest; and yet it is in some cases by no means so. I have known physicians of great practical experience mistake a solid lung for pleuritic effusion, and pleuritic effusion for a solid lung, and I have not been myself altogether free from such errors. There is, indeed, no single sign which invariably exists by which pleuritic effusion can in all cases be certainly diagnosed, and it is undoubtedly true that the characteristics of its presence on which we mainly rely may and often do lead us into error.

Let me say a few words in reference to the evidence we derive of the existence of effusion from *percussion*. It is obvious that any solid or liquid in the chest will give rise to dulness on percussion; and it can only be by the character of the dulness, or its shifting nature, that we can say that it depends in any case on pleuritic effusion. Undoubtedly there is usually—indeed in the great majority of cases—a profound character about the dulness which can scarcely be mistaken; but there are exceptional cases of extreme dulness without any effusion. You may recollect the case of B——, in No. 10 ward, who came to us with a history of pleurisy, and in whom we found dulness of a very leaden character over the whole of the left side, extending up to the clavicle, and passing to the extreme right of the sternum. The breath-sounds were absent below, and only heard faintly at the upper part of the chest; moreover there was absence of vocal vibration, and the heart-sounds were faint and best heard to the right of the sternum. The presumption that pleuritic effusion existed was very strong, and it was thought desirable to ascertain the fact, so that if fluid were present some of it might be drawn off, and thus the urgency of the symptoms be relieved. A fine canula was accordingly introduced, and the aspirator was used, with the result, however, of drawing off only a few drops of blood. Not satisfied with one exploration, I subsequently repunctured the chest at a different spot, but the result was the same. The progress of the case showed its nature: faint crepitation was heard after a time, and death revealed to us the actual condition of the lung. It was more or less solidified throughout, and universally adherent to the chest-walls; the pleuræ were greatly thickened; and there were strumous deposits in the anterior mediastinum. These deposits had caused the dulness, which extended to the right margin of the sternum, producing thus a sign which, taken with the other signs, I had never previously met with in any lung disease except pleuritic effusion and cancer.

Again, in reference to the shifting nature of the dulness, you must not, in diagnosing pleuritic effusion, depend too much on the fact, which I have often demonstrated in the wards, that the line of dulness varies according to the position of the patient. If the lung is perfectly free from adhesions, the fluid in the chest will gravitate to its lowest part, and the upper line of dulness will vary according as the patient is sitting or lying; but some of you will recollect the case of the woman in No. 15 ward in whom we had marked dulness, with absence of breath-sounds, in front of the left lung reaching to the level of the second rib, with resonance at the back extending even below the angle of the scapula, and from whom we drew off, at the time these signs were present, a large quantity of pus.

Auscultation often affords valuable aid in the diagnosis of pleuritic effusion. Speaking generally, the breath-sounds are usually either absent or faint over the seat of effusion, but they may be also absent over an intensely solidified lung, or over one which is less solidified but adherent by very dense pleuræ to the chest-walls, just as was the case in B——, to whom I have referred. Again, the breath-sounds may be very loud, simulating those of a solidified lung, when there is a large pleuritic effusion. There was a woman under the care of my colleague, Dr. Glynn, some time ago in whom loud bronchial breathing was heard, both over the front and back of the right lung, where there was marked dulness, and yet, as was subsequently proved, a very large quantity of fluid existed in the pleural cavity. In children, again, the phenomena of bronchial breathing and bronchophony are often present, although the effusion may be great, and I have met with other instances besides the one I have alluded to where loud breathing has been heard in adults. Moreover, you must not forget that in old-standing cases of effusion the sound lung takes on increased action, the breath-sounds become puerile, and may sometimes be heard on the opposite side of the chest.

But to take another sign to which great importance is very properly attached. In pleuritic effusion it is undoubtedly true that *vocal vibration* is generally absent; that when the hand is placed on the chest whilst the patient speaks, no thrill is communicated to it; and yet I have sometimes felt a well-marked vibration over a chest from which I have immediately afterwards removed a large quantity of fluid. Some of you may recollect the case of A——, in No. 10 ward, who was the subject of empyema. In that case I pointed out to an assembled class that we had most of the signs of pleuritic effusion well marked—viz., leaden dulness, absence of breath-sounds, &c. The man had been previously tapped, and a considerable quantity of fluid had been withdrawn. We had watched the gradual reaccumulation of the fluid, and the time had come when I resolved to retap. Over the affected side—over the seat of leaden dulness, and where the breath-sounds could not be heard—there was distinct, well-marked vocal fremitus. An aspirator-tube was introduced, and we drew off ninety ounces of pus.

I removed, some time ago, two pints of serous fluid from the chest of a man in whom vocal vibration was distinctly perceptible, except at the extreme base of the lung—perceptible where there was marked dulness from the presence of fluid.

Again, there was the case of the woman McK——, in No. 15 ward, who was admitted with pleuritic effusion, and was tapped several times. Before the first tapping you may recollect that there was distinct vocal vibration at the lower and back part of the affected side of the chest. I removed twenty-five ounces of fluid. Strange to say, we never had any return of the vibration throughout the progress of the case. The fluid collected and re-collected, and we removed it on three or four occasions.

I think that possibly we may account for the persistence of vocal fremitus in some of these cases of pleuritic effusion by the existence of adhesions of the lung to some parts of the chest-wall.

Whenever pleuritic effusion is great there is *displacement of viscera*. The heart is often found beating to the right of the sternum when the effusion is on the left side, and this displacement is great where the effusion has been rapid. There are also displacements from the diaphragm being pushed down. But, independently of the fact that displacements may be due to the presence of solid matter in the chest, it frequently happens that although there is a good deal of fluid in the pleura, there is but little visceral displacement. In the first place the heart may be so connected with the chest-walls by adhesion that it cannot be displaced except to a slight extent; and, further, in the more chronic cases, the lung yields to the pressure of the fluid, collapses, and thus leaves a large space for the fluid. The displacement of viscera may therefore be much less than you would expect from the quantity of fluid which, after operation, you find has existed.

Again, you must not always expect to meet with any decided increase in *the size of the affected side*, or a *bulging of the intercostal spaces*. Setting aside the fact that measurements are not always trustworthy, it is undoubtedly true that in adults effusion may be very great and yet there may be no increase, as shown by the tape, in the size of the

affected side, as compared with the opposite one. In the more yielding chests of children it is otherwise, and a notable increase is more frequently met with. Doubtless in most cases, if you watch them from the beginning, having taken the measurement before effusion, you will find an increase in the size of the affected side. But what I wish to impress on you is this, that in the more chronic cases the side of the effusion often measures less than the opposite side. As an instance, there is the case which you have seen in No. 10 ward. In this man, who was the subject of extensive empyema of the left side, the measurements before tapping were as follows:—Right side, 1 ft. 5½ in.; left side, 1 ft. 5 in. We drew off 58 oz. of pus from the left pleural cavity.

Now it is very probable that the measurements of the left side were greater than in health, before the effusion took place; but the left lung being crippled, the right had taken on increased action, and had distended that side of the chest beyond the normal.

Further, although the intercostal spaces are at times altered in their appearance, becoming more or less convex, yet extensive effusion may exist in adults without any such change taking place.

It is scarcely necessary for me to allude to *ægophony* as a sign of pleuritic effusion. I look upon it as a more fancy sign, being generally absent when there is any difficulty of diagnosis.

I have thus endeavoured to deal with some of the difficulties which you may meet with in the diagnosis of pleuritic effusion, and whilst I admit that in the majority of cases the diagnosis is easy, I venture to say that in others it is very difficult; indeed, I think in some instances it is impossible to say positively whether fluid is present without making an exploratory puncture, and in all cases of doubt, where the propriety of tapping the chest is in question, no decided opinion should be pronounced until a fine aspirator-tube has been introduced. But I must say a few words about this preliminary exploration. Simple as it may appear, easily as it is accomplished, and usually attended in hospital practice with but little trouble, it is far less simple amongst private patients. It becomes, in fact, magnified into an "operation," and should no fluid be withdrawn the confidence of the patient is not increased in the physician. Therefore it is well to weigh carefully every feature of a case before introducing even the finest canula. I believe, however, that no harm is done by the use of these tubes, even if a solid lung, or solid tumour, or even a healthy viscus is punctured. You need not therefore be under any apprehension on that score.

But I must tell you that when there is a good deal of fluid in the pleura, one, or even two punctures may fail to withdraw any of it. You may possibly puncture at a spot where there are adhesions; and, again, you may find that, even when there is a pure serous effusion, such as you would think ought to flow through a fine canula, nothing will follow the introduction of the tube unless the exhausting syringe is used. I had under my care a man who, having had empyema of the right side, had symptoms of pleurisy on the left. On examination I diagnosed the existence of effusion. I introduced a fine aspirator-canula, and I felt that I had passed the instrument into a cavity, but no fluid oozed out. I withdrew the canula to see if it was plugged, but it was free. I reintroduced it, but still there was no fluid. The aspirator was applied, and twenty ounces of clear serum were drawn off. Sometimes from the extreme thickness of the thoracic walls it is necessary to pass the canula very deeply before you feel that you have reached the cavity of the pleura. You may recollect the case of the man N—— who was under my care in No. 10 ward. He had been previously tapped for empyema, and he had the signs of a re-collection of the fluid. I introduced a canula into the back of the chest. I felt the instrument entering a soft substance after having passed some distance through the chest-walls. I moved the canula about, but clearly it was not in the pleural cavity. Had I made a mistake? Had I punctured a solid lung? The canula was already buried nearly two inches in the chest-walls. I pushed it further, and had the satisfaction of finding that it entered a cavity. I drew off forty-five ounces of thick pus. When you puncture the chest, if nothing but blood or bloody matter exude, it is well to examine the contents of the canula under the microscope, for such examination may enable you to differentiate between a cancerous and some other tumour. At the same time, it must be borne in mind that a cancerous lung may be punctured half a dozen times without a cancerous portion being reached, and cancer may exist although only blood is drawn off.

What I have said as to the non-passage of fluid through a canula will teach you not to trust to the mere introduction of a grooved needle as a means of diagnosis. Some physicians use the small syringe employed for hypodermic injections.

I must now pass on to say a few words about the treatment of pleuritic effusions, and my remarks will be confined chiefly to those effusions which are more or less chronic. As a matter of fact, acute primary pleurisy is a rare disease. Pleuritic inflammation is usually connected with some constitutional state, some constitutional vice, and is more or less secondary. In reference to the more chronic cases, the treatment I have found most useful for promoting absorption of the fluid is the internal administration of iodide of potassium with tonics, bark, &c. Iodide of iron or the tincture of the perchloride of iron may sometimes be given advantageously, and counter-irritation should be used. I prefer for this the application of iodine rather than blistering, but blistering is often useful. I recommend you, however, not to blister severely. I have seen very extensive effusions which had lasted for many weeks—even months—removed by this kind of treatment, and it is well, unless certain urgent symptoms are present, to give constitutional measures a fair trial before resorting to tapping. I must tell you that I have no faith in the powers of mercury to produce absorption of these effusions, and I am not in the habit of prescribing it. I think it is important to keep up the strength of patients, for there is a far greater probability of the fluid being absorbed when they are strong than when they are weak, and therefore good diet should be given, with tonics, and even wine, whilst the special remedies are administered.

The last points I wish to refer to are the propriety of tapping in these affections, and the period when the operation should be resorted to.

There can be no doubt that many cases of extensive pleuritic effusion have been lost from the operation of tapping having been either too long delayed or not performed. When the effusion is great there is danger of fatal syncope or fatal dyspnœa, and one or other of these may occur, although there does not appear to be any serious interference with the breathing, especially if the patient is somewhat advanced in years or debilitated. The danger of delay is well illustrated by many cases recorded by Trousseau and others. Let me refer to one. A patient was under my care some years ago in the Northern Hospital, with pleuritic effusion. I was trying general measures, intending to tap in a day or two if there were no improvement. One morning the man was seized with a sudden attack of syncope and died. A large quantity of fluid was found in the chest.

Now as to the time at which you should tap in pleuritic effusions. I think you should tap in all cases, *of whatever duration*, whether acute or chronic, where the accumulation of fluid seriously compromises respiration, and especially if there have been any sudden attacks of dyspnœa. Again, wherever an extensive effusion has lasted some weeks, and shows no signs of diminution from general treatment, tapping should be resorted to, whether dyspnœa is present or not. It is not necessary to remove the whole of the fluid, indeed it is better not to do so if the effusion is large, for reasons which I will mention presently. The removal of a portion of the fluid usually has the desired effect, and seems to stimulate the process of absorption of the remainder, and to cause the general measures to act with greater success. There is one rule you should always observe. You will find that the patients, after a certain amount of fluid has been withdrawn, will often complain of a sensation of constriction across the chest or epigastrium, or of pain. Under either of these circumstances the operation should be at once stopped.

As regards the site for tapping, I prefer, under ordinary circumstances, that recommended by Bowditch. The rule is to find the inferior limit of the sound lung behind, and to tap two inches higher than this on the pleuritic side, in a line perpendicular from the inferior angle of the scapula.

With ordinary care, and especially by using the aspirator, no air need enter the chest in the operation.

I have never in my own practice, and I have now tapped many times, seen any bad results from the operation, and this is the general experience; but still some instances are recorded where death has followed very soon after tapping, probably either from syncope or from the presence of clots in the pulmonary vessels. One such case occurred in this hospital. A considerable quantity of serous fluid had been drawn off from a man, and he was left apparently well. In the course of about half an hour, however, he was dead. Whilst therefore I consider the operation essentially safe, it is well to bear in mind that it is not always unattended with danger; and in order to avoid as much as possible all risks, I advise you to draw off the fluid, especially when it is serous, by a small canula, and not to take away too much at once; rather, in fact, to repeat the operation, if necessary, than disturb too much the existing relations of the lung.

In the treatment of empyema there are two methods which you may adopt. First, the treatment by constant drainage through a tube introduced into the chest; and, secondly, the treatment by repeated tappings. I have seen both these methods succeed, but I must defer the consideration of this subject to another lecture.

Notes on SYPHILIS.

Being an Address delivered before the Pathological Society introductory to a Discussion on that subject.

By JONATHAN HUTCHINSON, F.R.C.S.,

SENIOR SURGEON TO THE LONDON HOSPITAL, ETC.

Mr. President and Gentlemen,—In engaging in a discussion on Syphilis, with a view to the advance of our knowledge of it, there are certain facts as to its nature which we may, I presume, take as generally accepted. It is, I suppose, now a matter of general belief that the phenomena of this disease, notwithstanding their great variety in detail of character, are due to one virus, which, having been introduced into the body by contagion, developes within it, with tolerable uniformity as regards stage and time, certain processes of inflammatory growth. The pluralistic doctrine of Carmichael never obtained any wide acceptance; and it is now, I think, generally acknowledged that what was called dualism had not really any claim to such a name, since but few ever believed that there were really two rival forms of virus capable of producing constitutional effects. Further, even in its much more restricted sense, as implying that there are two distinct kinds of virus, to which are attributed two different forms of chancre, I think we may say of dualism that it is dead, and that the far simpler creed which attributes the soft chancre to contagion with inflammatory products produced by syphilis, but not, as a rule, containing its germs, is the one which now obtains general acceptance. We have, then, in syphilis, but one malady and one virus.

The objections which, on account of its apparent irregularity, were at first urged against the claim of syphilis to take position amongst the specific fevers, have been greatly diminished of late by facts from two different directions: first, by the observation that the short-lived exanthemata are by no means so regular and uniform in their career as it had been customary to account them; and that, in point of fact, they do vary quite as much as to length of stage, degree of severity, and occasional omission in some of their phenomena, as does syphilis. Secondly, we have come to appreciate more correctly the antidotal power of our specifics, and have remembered that it is not fair to allege against a malady that it is irregular in its course, when our observations are made on cases in which we have done our best, by means of a most potent antidote, to arrest its career. I have no doubt but that, if mercury were entirely put aside, we should soon see that syphilis is quite as regular in its stages as variola, and also that it varies quite as little in its degree of severity in different persons. When mercury does not cure it delays; and the retardation of stages sometimes witnessed under its use is very remarkable.

Thus, then, what I shall have to say this evening will be based on the assumption that in syphilis we have to deal with a specific fever of prolonged but definite stages, which is produced by contagion only, which has a period of incubation, a period of outbreak (known as primary symptoms), and a period of efflorescence or exanthem (known as the secondary stage), and which, in exceptional cases, differs somewhat from its more short-lived congeners by being followed by sequelæ, to which we give the name of tertiary symptoms.

Had it not been for this unfortunate tendency to recur and become protracted, syphilis might have remained a surgical malady. If it always ended, as it ought to do, with its exanthem or secondary stage, there would have been no need to trouble physicians as to its treatment, nor is it very probable the Pathological Society of London would have thought it worth while to invite a detailed discussion of its life-history problems. To the annoyance and misery of thousands, however, syphilis does not always end with its apparent death at the expiration of the secondary stage. The patient seems then to be well: he loses his fever, his rash disappears, his throat heals, his hair grows again, and his blood is renovated. But he is not safe; there remains ever after a risk—comparatively a very small one, but still sufficient to cause much anxiety—that he may become troubled with a tendency to the growth of tumours, which will be in direct relation to his bygone disease. These may occur in important parts, may attain large size, and will probably show very little tendency to spontaneous cure. To these we give the name of tertiary symptoms or sequelæ, and we recognise a most important distinction between them and those of the earlier stage, in that they are never general, and only by accident symmetrical. They do not constitute another stage of a blood-disease, but, by their constant non-symmetry, appear to prove that now, at least, the blood is not concerned. We no more witness returns of the syphilitic exanthem—a symmetrical and general eruption—at long periods after the first, than we do recurrences of the small-pox eruption after the patient has recovered. Most unhesitatingly may we characterise as errors in observation a certain small number of cases which have been supposed to illustrate this occurrence. In all probability syphilis ceases to be a blood-disease at the date when symmetrical manifestations cease to be usual. The precise period at which this takes place will vary with the treatment pursued and the idiosyncrasy of the patient.

The correct determination of the period at which syphilis ceases to be a blood-disease could, perhaps, be determined with certainty only by inoculation experiments. That there is a period at which it does so cease, without in the least exempting the patient from the risk of fresh local symptoms, appears highly probable. Whilst the secretions from all forms of secondary ulcerations and the blood of patients in the secondary stage are abundantly proved to be contagious, the negative evidence as regards both in the tertiary stage is very strong. The secretion from a phagedænic sore in a tertiary case may spread phagedæna, but will not spread syphilis, and hence, probably, one frequent source of what are called soft sores. It would be rash to assert that it is impossible for tertiary syphilis to prove contagious, but at present I know of no evidence which would support the affirmation. The test of contagion is probably the best that we possess as regards the existence of a blood-taint, and, guided by it, there seem strong reasons for suspecting that risk of hereditary transmission may persist long after the cessation of blood contamination. At any rate, the risk of contagion appears to cease long before the risk of hereditary transmission. I admit that there is difficulty in conceiving of this, or in understanding how a taint no longer active in the parent's fluids can be reproduced with virulence in his offspring, but the facts seem to point in that direction. In speaking of the possibility of local syphilitic phenomena occurring long after the cessation of blood-taint, it is intended to imply very definitely the belief that many of the late phenomena of syphilis are purely local; and that, if they exist in parts which are accessible to local remedies,

they do not imply any necessity for internal treatment. If I may be pardoned a statement which refers to clinical rather than to pathological matters, I may say that the long persistent and frequently relapsing sores in the tongue and many forms of skin-disease, palmar psoriasis, lupoid tubercles, &c., are local and not constitutional, and are cured quite as easily by local as by internal treatment. The internal gummata are also probably often only local, but you cannot bring mercury or iodine into contact with them, excepting by introducing these remedies into the blood. It is hardly necessary to say that success by internal treatment by no means proves that the disease was more than local.

Before proceeding further to speculate upon the true relationship between the secondary phenomena and their sequelæ, it may be best to glance briefly at some of the peculiarities of the syphilitic inflammations. So peculiar are the products that one is almost tempted to speak of new growth rather than of inflammation. From beginning to end—from the chancre to the latest tertiary gumma—the tendency to cell-growth is most remarkable, and the production of a solid palpable mass, often very firm, is a characteristic feature of the inflammatory process when lighted up by the virus of syphilis. It is, however, by no means the only one. An avoidance of proclivity to suppuration (not constant, but still very marked), a tendency to cause death of the tissues affected, and thus produce phagedænic ulceration, or even sloughing, and a proneness to undergo rapid and complete absorption, especially when attacked by certain metals or their salts, are features which characterise and distinguish the new growths due to syphilis. Let us add that, whilst absorption may easily be procured, relapses are very prone to occur, especially if the treatment be arrested too soon. It is to be insisted that these peculiarities are the common property of syphilis in all its stages. A gumma on the tongue may be almost as hard as a chancre, and either of them may be, and have been many a time, mistaken for scirrhus. A chancre, when very large and dense, may perish and slough out just like an overgrown gumma. The chancre, the secondary rash, and the gumma are all alike liable to undergo molecular death and to be attended by phagedænic ulceration. To attempt to distinguish between the secondary and tertiary stages, by saying the latter only is attended by liability to deep ulceration, is to set facts at defiance.

So marked is this liability to phagedæna in syphilis, and so rare in connexion with any other cause, that with a few exceptions we may count syphilis, either directly or indirectly, as the parent of all phagedæna. The discussion as to whether rupia and its allies are secondary or tertiary symptoms may thus be easily decided by explaining that there is nothing in the "rupial sore" characteristic of either, and that its features may be assumed in both. If rupia occur as symmetrical eruption, it will always be found that the period which has elapsed since the contagion is only short, and that the disease is consequently secondary; but if it be unsymmetrical, then in all probability it is tertiary. Histologists, I believe, admit that the differences in cell-structure between an indurated chancre, a secondary tubercle, and a tertiary gumma, are only very slight, and that essentially all three are constructed on the same plan.

The attempt to found distinctions as to the stage of syphilis upon the tendency or otherwise to deep ulceration has been the means of introducing much confusion into the subject. It cannot be too strongly insisted that this may be shown at any stage. It may be remarked also in passing that phagedænic action constitutes an exception to the statement that the inflammation due to syphilis in an early stage shows a tendency to spontaneous cure. When the wizard Syphilis has once called up the demon Phagedæna, it has evoked that which it is powerless to control. No law of spontaneous cessation and recovery will now be observed; nor will the specifics for the parent malady avail much as regards the offspring. Phagedæna, once started, exists on its own behalf, and spreads by the contagion of its own pus. To arrest its spread, it is necessary to destroy its secretion.

Thus, in examining the question as to the relationship between the several stages of syphilis, it is, I think, a matter of necessity that we admit that many features and many tendencies are shared by the phenomena which occur in all. Whilst, however, their similarities are marked, so also to some extent are their differences. First, and as by far the most important of the differences between the stages, we place one which has been already mentioned, the tendency to general and symmetrical development in the secondary stage, and to local, restricted, and unsymmetrical formations in that of sequelæ. This, however, after all, is merely a question of abundance and not so much of character. In the secondary stage the blood and all the tissues are involved, whilst in the later ones only certain regions, or, it may be, only single spots. The second difference is, that a spontaneous tendency to resolution of the new growths and to absorption is constantly witnessed, whereas it is exceptional in all tertiary products. It is, however, by no means certain that spontaneous disappearance does not often occur in the case of tertiary growths. Still it may be fairly granted that a proneness to persist, to grow, to spread, and to contaminate adjacent parts, is far more frequently witnessed in the tertiary than in the early formations. I am puzzled to find for mention any other characteristics which distinguish these two classes of symptoms. It may probably be suggested that there is difference as to the parts liable to be attacked, and as to the depth to which ulceration may go, that the symptoms in the secondary stage are all superficial—skin and mucous membranes—and that they do not spread deeply; whilst those of the tertiary stage are apt to occur in cellular tissue, periosteum, bones, viscera, or meninges. I can, however, only admit with great limitation these assertions. Deeply spreading ulceration occurs not unfrequently in the secondary or even in the primary stage; and, as to the immunity of the viscera, cellular tissue, and periosteum in the secondary stage, it is far more easily asserted than proven. Some able writers on syphilis have proposed the term "period of gummata" as a substitute for "tertiary stage," but really gummata may occur in the secondary stage also. It is true that the large gummata of the testis, cellular tissue, liver, &c., are very rare, excepting in the late tertiary periods, and hence a general impression on the subject, which is, I suspect, very false. Nor is it absolutely true that even the large gummata are not seen in the secondary stage. Abundant facts on record disprove such an assertion. Distinctions which relate only to size may easily mislead.

The visceral pathology of the secondary stage might form a chapter in the history of syphilis which has not as yet been written, and for which we possess but few data. It is, however, I feel sure, a great mistake to suppose that there are none to be obtained; and this Society would, I think, be doing a most useful work in encouraging the production of carefully sifted evidence on this point. It is of course rare for patients to die during this stage, and opportunities for post-mortem examinations are not frequent. The widely spread belief that secondary syphilis, in the acquired form, has no internal pathology worth working at, has probably led to the waste of not a few opportunities which have chanced to occur. I venture to foretell that, when the facts are forthcoming, we shall change our opinions on this point very definitely. There is surely no *à priori* probability in the creed that a blood disease so severe as syphilis should produce lesions on the skin, in the mouth, and in the eye only; that it should, in fact, affect all the visible parts and avoid all the concealed ones. The fact that the latter are concealed is probably the only reason why we believe so. The real difference between the secondary and tertiary manifestations, let me repeat, concerns probably some minor facts as to their course and tendencies, rather than the parts attacked. In the secondary stage all the morbid processes are transitory, and tend to spontaneous cessation; whilst the tertiary ones are more persistent, and tend to destruction of the parts concerned. But, apart from mere inferential conjecture, there are certain facts already ascertained which seem to discredit the opinion that only certain tissues are attacked in the secondary stage, and certain others in the tertiary one. Time will not permit of my mentioning cases, but I may briefly enumerate the following points.

1. In the inflammations of the eye, well recognised as early and secondary, we have various tissues involved: the iris, which is fibro-muscular; the hyaloid; the retina; and usually, I think, at a somewhat later period, the choroid. In the iris and in the choroid, little tumours, analogous, I suspect, in all respects to gummata, are seen.

2. When the internal ear is attacked in acquired syphilis (a very rare event), it is usually during or immediately after the secondary symptoms.

3. In two cases of death from syphilitic disease of the heart which have come under my notice, the event in both occurred in the secondary stage (myocarditis with gumma).

4. In one of the latter cases (post-mortem by Dr. Sutton), definite gummata were found in both testes and in the spleen, although the secondary rash was still out in the patient's skin. A similar case in an infant, three months old, with secondary rash, has recently been brought before this Society by Dr. Coupland. Parallel facts have been recorded by French observers.

5. It is very common for patients during the secondary stage to complain of symptoms which would imply disease of the same tissues which are attacked later on in the tertiary period. Rheumatoid pains, often with slight swellings over bones, represent probably the nodes of a later stage. Febrile disturbance, severe headache, loss of appetite and strength, are all symptoms, which the eruption on the skin scarcely suffices to explain. Transitory albuminuria is not uncommon, and some authors assert that jaundice may occasionally occur. We should probably see more of such symptoms were it not for the common practice in England to assail the disease with its antidote.

6. The strongest reason for believing in the frequent occurrence of visceral and periosteal lesions in the secondary stage of acquired syphilis is, that they are very common in the corresponding stage of the inherited disease. In the latter, the secondary stage is far more severe than it is in adults, and often ends in death, and abundant opportunities are afforded to the pathologist. In infants it is well known that visceral and bone lesions occur not very infrequently and simultaneously with the skin eruption. The best example of gummata in the liver that I have ever seen was from an infant. Mr. Canton has described in our Transactions a case in which these growths attained a large size, and showed all the characters which are displayed in those of the adult. To Wegner of Berlin we are indebted for important investigations proving the frequency of periostitis in infants, and the able work of Dr. Taylor of Boston, just published, contains abundant evidence on the same point. When syphilitic sarcocele (gumma, and often large) occurs in inherited disease, it is always in young children and sometimes in infants. Nor is it possible to dismiss this class of facts by suggesting that many infants begin with the tertiary stage, and that probably those who show internal lesions are born of parents who have suffered from the disease long ago. It is, I believe, almost invariable for infants to begin with the secondary stage, whatever may have been that which their parents may have reached. And further, in not a few cases in which infants have displayed phenomena ordinarily ranked as tertiary, they were the offspring of parents who had but recently suffered, and they themselves showed at the same time the usual symptoms of the secondary one. It is certain then, that, in infantile syphilis, at any rate, visceral and periosteal lesions often occur in the early periods. Let it be added that precisely the same kind of differences are observed between the periostitis of infancy and the periostitis of some years later that we see between the tranaitory bone-pains of the secondary stage in adults and the more lasting nodes which follow years afterwards. In the infant, the epiphyses and adjacent bones swell and become tender; but, after a while, all trace of enlargement passes off, and unless, as sometimes happens to a growing bone, deformity is caused, no trace of the malady remains. Five or eight years later, very probably the same child's bones may become thickened by permanent osseous nodes.

The theory suggested as to the relationship between the secondary and tertiary stages would amount to the abandonment of the latter as any true stage at all. I would emphasise the teaching of those who regard tertiary symptoms merely as sequelæ. Many authors, impressed with the difficulty of arranging in any orderly manner the various sequences of syphilis, have been willing to give up the use of the term tertiary; but it has, I think, always been found necessary to substitute it by some other in no respect more satisfactory. In Lancereaux's able treatise, we have the term "period of gummy deposits." My argument is, however, that gummy deposits occur also in the secondary stage, and that in this they differ only from those of the tertiary in that they rarely attain any large size, and usually subside spontaneously. The gummata of the early period are usually small—miliary as they have been called; those of the tertiary sometimes attain a large size. On this admission of fact follows closely an hypothesis which may prove important. Are not the tertiary gummata probably regrowths in structures left behind from the secondary stage? Such an hypothesis, if plausible, would undoubtedly help much to the simplification of the subject; it might also in the future assist in giving definiteness to our plans of treatment. The ingenious doctrine of residual abscesses, so ably propounded by Sir James Paget, may aid us in the appreciation of this suggestion. We need not, indeed, go far in any direction of pathological observation for proofs of the tendency of parts once diseased, or the site of morbid products, to relapse even after very long periods of quiet. An especially curious and apposite one is afforded by the rare cases in which indurated chancres relapse. The fact that indurations sometimes recur in parts where formerly chancres existed, without any fresh contagion, has been noticed by several writers, and, amongst others, Mr. Lee has recorded an example of it. It has, however, I think, scarcely received the attention which it deserves as an illustration of pathological law. I have under occasional observation at the present time several patients who are subjects of the relapsing chancre. Indurations, in all respects like primary sores, occur repeatedly, and without any fresh contagion, and present features which would defy the most experienced observer to diagnose them excepting by the history. They may remain for a few weeks, or even months, and may occur many years after the patient has passed through his secondary stage. Mr. Lee has suggested that they are to be regarded as tertiary gummata; but it is to be noted that they are as hard as cartilage, never slough, often disappear spontaneously, and are always located exactly in the site of the original sore. It is this latter fact which seems to me so important in reference to the theory just suggested. It may be well to add, that the fact that these relapsed sores are never followed by secondary symptoms, and that they may occur not once or twice, but half a dozen times to the same individual, conclusively support the patient's assertion, that they are not produced by fresh contagion. If an indurated chancre may, in virtue of something which has been left behind, develop afresh in its old site ten years after the primary disease, why may not a like event happen to the cell products of the secondary stage? It is not to be forgotten that a difficulty may be suggested in reference to this hypothesis, in that the tertiary gummata occur often in parts which are not proved to have been involved in the secondary, and are absent in others in which they frequently are so. For instance, secondary iritis is common, but tertiary iritis or tertiary gummata in the iris are very rare. This objection is probably more apparent than real; and we must always keep in mind that tertiary phenomena of any kind are exceptional; and, further, that it is quite possible that regrowth is the most likely to happen where the original development has been but slight, and the cell-growth has been checked before its power was exhausted. It may, also, be fairly urged that, although exceptions happen, yet, as a rough rule, the tertiary neoplasms are met with in or near the parts which are most commonly affected in the secondary stage. The skin, the subcutaneous cellular tissue, the palate, and the throat are their more frequent sites. It is true that the brain, nerves, muscles, and viscera claim our attention much more; but this is on account of the greater importance and interest of the symptoms produced, not because they are really the most frequent sites of tertiary gummata.

In connexion with this theory, that the tertiary growths occur in cell-structures which have remained over in a quiescent state from the secondary period, it is a matter of justice that I should mention the great name of Virchow. Amongst the many suggestions for which we are indebted to his labours, is his well-known theory that relapses of symptoms are caused by stores of poison which have remained latent in various parts, especially in lymphatic glands, and, undergoing development after an interval, cause fresh contamination of the blood. This, however, is not quite the same idea as that the tertiary growths result, not from blood-contamination in any way, but simply from local renovation of long-resting germs.

In contrasting the course of inherited syphilis with that of the acquired disease, several remarkable features at once arrest our attention. Amongst these are the severity of the secondary stage, often fatal; and, on the other hand,

the frequent omission of all early symptoms; the remarkably long periods of latency which ensue after the cessation of the infantile symptoms; and, lastly, the great rarity of most of the conditions, which in the acquired form we rank as tertiary. I am warned that I must be exceedingly brief in what I have to say on these topics, and to the first two I will not further allude. The periods of latency which are often witnessed constitute, however, a phenomenon too remarkable to be passed over. As is well known, most syphilitic infants suffer during the first few months of life from affections of the skin and mucous membranes, which are clearly analogous with the early secondary symptoms in adults. These pass off after a time, and at the end of a year, if the child have survived, it usually appears to be quite well. It may now remain for five, ten, twenty, or even five-and-thirty years without any further indication of its taint, and then may occur some definite and most peculiar affections. That there is a form of interstitial inflammation of the cornea, which when well characterised can be recognised as most certainly due to inherited syphilis, is a fact which I believe is not now doubted by any English observers. It is usually symmetrical, and, in a large majority of cases, it runs its course and disappears spontaneously, and as completely as does a secondary syphilitic rash. Nor are the facts as to the long period of latency which may precede it more in dispute than its own character, and I shall scarcely be blamed for exaggeration if I say that they are amongst the marvels of pathology. Not only may this form of keratitis occur to a grown-up person who has had no symptoms of syphilis since infancy, but it may happen also to one who has never had any symptoms before, and may yet be itself most characteristic. It is difficult to offer any explanation of the cause of this long delay, other than that it has, perhaps, something to do with the gradual development of the tissues. In connexion with it, we must remark that, however long may have been the interval of latency, interstitial keratitis is still plainly one of the secondary group. Its symmetry and its tendency to spontaneous disappearance both prove its position in this respect, and we note, besides, that certain other phenomena which sometimes occur at about the same age show similar characters. The choroiditis and the disease of the ear, which in these patients so often leads to deafness, are both of them usually symmetrical, and so also very often is the more chronic form of periostitis. I do not mean that the symmetry is absolute. It is not the Dutch-gardener sort of symmetry, which insists on an absolute correspondence, both as to time and features, in the two halves; but still it is sufficiently well marked to assure us of the fact. Very often one eye takes precedence by a short time of the other, and often one suffers more severely than its fellow. I have yet another and a stronger reason to urge for placing the keratitis and the inflammation of the internal ear, which are so frequent under the circumstances described, in the secondary class—namely, that when met with in acquired syphilis they are distinctly secondary. Both are, then, very rare. Of the internal otitis I have seen but few examples, and of the keratitis but one; all of the cases, however, occurred to those who had but recently acquired their disease. Until within the last three months I have always been inclined to deny that the interstitial keratitis so common in inherited syphilis had any analogue in the acquired disease. There is, however, at present in the Moorfields Hospital, under Mr. Wordsworth's care, a case which, as far as my own observation has gone, is unique. It is an instance of acute symmetrical keratitis in connexion with acquired syphilis, and it occurs simultaneously with a general papular eruption, and without doubt within a few months of the primary sore. Thus it would appear to be a fact in hereditary syphilis, that conditions which in the acquired disease would occur within the first year, may be delayed for ten or twenty. Next let us note that the conditions which chiefly attract attention in the tertiary stage of acquired syphilis are almost wholly absent in the subjects of inherited taint. Large gummata in the cellular tissue, in muscles, in the tongue, in the viscera, or in connexion with the cerebral meninges, are almost unknown. The paralysis of single muscles of the eyeball or of those of the face, the attacks of hemiplegia and of optic neuritis, with which we are so familiar in subjects of acquired disease, are, I think, scarcely ever seen in the inherited form. The able work of Dr. Buzzard on "Syphilitic Nervous Affections" does not record a single example of such in connexion with inherited taint, and although Dr. Hughlings Jackson has with his usual zeal availed himself of almost unequalled opportunities, he has succeeded in getting together but few cases, and hardly one exactly of the kinds I have specified. It is true that epilepsy and some forms of idiocy and insanity, and some other anomalous spinal symptoms, are met with in hereditosyphilitic patients, but, I repeat, we have almost none of the cases in which symptoms are supposed to be due to gummata, whether of nerve-trunks, the arterial coats, or of the coverings of the brain. To the last-named author we owe most of our knowledge as to the discrimination of the different anatomical lesions which cause nerve symptoms in syphilis. It is mainly in consequence of the elucidation of the subject due to his labours that I am enabled to make the statements which I now record.

It is clear that we have yet much to learn respecting the laws of hereditary transmission. As just remarked, it is exceedingly difficult to assign reasons why phenomena which in acquired disease are crowded together in the first year or two, should in the inherited form be separated by ten or twenty. Nor can we offer any explanation of the fact that, in the late periods of the inherited disease, there is no tendency to the formation of the neoplasms so frequently seen in the acquired form. I said that the chapter describing the internal pathology of the secondary period in acquired disease has yet to be written, and I may now say the same as regards that of the tertiary period in the subjects of inherited taint. With but very rare exceptions, the latter do not appear to suffer from any maladies which tend to shorten life. I made this statement in print many years ago, and nothing has occurred since to induce me to modify it. Although I have had constantly under observation numerous adolescents and adults well known to have suffered severely from inherited syphilis, neither in them, nor in their brothers or sisters, have I encountered any special disease of important organs. They have suffered in their eyes and ears, and sometimes in the skin; but here, for the most part, their liabilities seem to end. I do not think that I have made, or known made, more than half a dozen post-mortem examinations in such subjects, and in these for the most part no very noteworthy lesions were found. In two such death was preceded by long-continued albuminuria, and suspicion occurred that possibly the very long-continued use of iodide of potassium might have had something to do with it. So meagre is our knowledge of this department of the pathology of syphilis that our Society would, I think, do well to encourage the production before it of all evidence which may in the future be obtainable, with a view to its permanent record in our Transactions.

I now come to the last of the questions which is on my list for consideration, Is there any reason to believe that a taint of syphilis may mix itself with other causes of disease, and produce results of a hybrid nature? It is to scrofula and scrofulous disorders that chief reference is here made. Does syphilis in any way predispose to scrofula or tuberculosis? Vague suspicions have been entertained on this head almost since the earliest date of recognition of constitutional syphilis; and opinions, often of a very sweeping tenor, have been expressed with great confidence by many authorities. Formerly, indeed, it was a question very difficult of investigation. I would venture, however, to submit to the Society, that the facts which have been accumulated during recent periods, and the new symptoms which have been placed at our disposal, justify us in believing that syphilis produces in all its stages special and wholly peculiar lesions; and that although these may easily be mistaken for struma, they have in reality nothing whatever to do with that state of constitution. It is undeniable that syphilis, and sometimes the treatment required for it, may for a time enfeeble the system, and that during this state of debility, a person predisposed to phthisis or struma may experience an increase of his proclivity. In this, however, there is nothing more than what is common to all causes of enfeeblement, whether special or otherwise; and I do not think that in the instance of syphilis it amounts to much. Syphilis may be contracted by persons of the most various states of health, and by those who are the subjects of special diatheses. Strumous or tuberculous subjects, those who suffer from gout or from psoriasis, and those of extreme enfeeblement of circulation, may all in turn present us with examples of this specific disease. As a rule,

we do not observe any modification of the one by the other. A common psoriasis rash may persist during the treatment of constitutional syphilis, and may remain for years afterwards, just as it did before; and the same is, I think, true in the general way of lupus, leprosy, and other chronic maladies which show their chief symptoms in the skin.

In investigating the relationships between scrofula and syphilis, we might conveniently take as type-examples of strumous manifestations the common and fairly definite conditions of ulcers in the cornea and lupus. We have chiefly to consider the hereditary form of syphilis. A large majority of examples of chronic ulceration of the cornea (strumous ophthalmia) occur in those who show no signs of hereditary taint, but who, either in themselves or near relations, betray a tendency to other forms of scrofula. When such ulcers happen to those who are known to be the subjects of inherited taint, for the most part they run their usual course and require their usual remedies, while syphilitic keratitis is the same malady in the strumous and the healthy. I do not say that this is invariable, but I think it is the rule. Respecting the common and interesting disease of the skin called lupus, grave suspicions are still entertained by many who are well informed. To my own mind, however, the evidence is clear. True lupus has nothing whatever to do with syphilis, either acquired or in the first or second generation of inheritance. The evidence on this point is of two kinds. In the first place, we hardly ever, as far as my own experience goes—I might, I think, say never—meet with common lupus in those who are obviously the subjects of inherited taint. It must be granted, however, in the fullest manner, that not all, or nearly all, of those who really inherit a taint betray it either in physiognomy, teeth, or by concurrent disease of suspicious character; and, further, that it is precisely in those who do not so betray it that we must expect the history of symptoms in infancy to be wanting. In these cases, however, it is seldom that the patient is an only child, and it is very rare for a whole family to escape. If the surgeon will widen his inquiry, and, instead of contenting himself with the original patient, inspect carefully all the brothers and sisters, he will generally find evidence that is conclusive. In this way the recognition of signs of inherited taint in one individual very commonly reveals its existence in possibly a quite latent form in three or four others. We identify not merely an individual but a whole family, and thus very much extend our area of observation. Making use of the symptoms of physiognomy, teeth, keratitis, and choroiditis, I do not think that it would be difficult in any large out-patients' institution to soon make the acquaintance of several hundred individuals concerning whom the observer might be sure that they all, in greater or less degree, inherited a taint of syphilis. Anyone who had done this would be in a position to say whether lupus occurred in more than average proportion amongst this class; and I have no doubt as to what his verdict would be. It is difficult to leave this part of our subject without suggesting that most valuable work in this direction, not only as regards lupus and scrofula, but in reference to the late results of inherited taint, might be done by those of our members who have the advantage to be engaged in family practice. If all the cases in which family advisers are aware of the fact, either of the existence of syphilis in parents or its actual presence in offspring, or both, would carefully note all that occurs to all the children in such families, not only in childhood, but in after life, a mass of facts might be collected which would help greatly to the solution of many important questions. It is far more difficult to follow out these inquiries in hospital practice.

There is yet another line of argument as regards the non-connexion between syphilis and lupus. We have said that lupus does not occur frequently in the hereditarily syphilitic, or their brothers and sisters. Next, I assert that amongst those who have lupus, and their relations, you will find, as a rule, not the slightest reason for suspecting specific taint. No one can, I think, doubt for a moment that lupus may occur under conditions which make the existence of syphilis either in parents or grandparents most improbable, nor, indeed, that it is, for the most part, under those conditions that we usually meet with it. Now, as lupus is a definite and peculiar malady, the probability is that it has a definite cause, and it is not due in one case to the tubercular diathesis, and in the next to that of syphilis.

There is no doubt that syphilis may produce skin diseases which superficially very closely resemble lupus. This occurs most frequently in the acquired form of the disease, and, in a few of these, the diagnosis is really very difficult. The essential difference in nature is, however, usually proved at once by the results of treatment. In inherited syphilis, we seldom or never see anything which at all resembles the tubercular or common form of lupus. We do meet, not unfrequently, however, with a disease which formerly was called phagedænic lupus, but which, like other varieties of phagedæna, is always and wholly the result of syphilis. It spreads far more rapidly than true lupus, and is easily curable by measures which would avail but little against the latter. Above all, it is easily distinguished after cure by the fact that its scars remain perfectly sound, without any tendency to the relapses so constant after cures of lupus.

Here, Mr. President, I must draw to an end. In attempting to fulfil the responsible duty with which the kindness of your Council has honoured me this evening, I have thought it better to avoid all subjects of mere detail, such as might seem to be more appropriate for special communications. I have kept two points chiefly before me: to try, if possible, to simplify and make more orderly our general view of the subject; and to direct attention to those parts of it which seem most to need further investigation. To my great regret, I have, under compulsion as to brevity, found but little opportunity for mention of the names of those to whom we are indebted for the facts and suggestions of which I have so freely availed myself, and of which, indeed, my paper is in some sort a running summary. Our knowledge of syphilis has, indeed, been set in the light of many minds. If we were to pass over in silence all excepting those who have contributed recent additions to our stock, and of them take only those who have worked at the departments most interesting to this Society, the list would still be very long, and the difficulty of doing justice very great. In France, Ricord, Diday, Lagneau, Laucereaux, and Fournier; in Germany, Virchow, Wegner of Berlin, Ditteich of Prague, Von Barensprung, and Zeisel; in Scandinavia, Bergh, Boeck, and Bidenkap; in America, Dr. Bumstead and Dr. Taylor, have taken foremost places; but their names do not even tithe those who have a claim on our gratitude. At home, Dr. Wilks, I believe, led the way as regards visceral syphilis, and the earliest contributions were most of them made before this Society. Dr. Murchison, Dr. Moxon, Dr. Weber, and Dr. Payne have also contributed most valuable facts. Our knowledge of the diseases of the nervous system, to which I believe Dr. Reade, of Belfast, was the first of our countrymen to contribute, was early supplemented by cases from the practice of the late Dr. Todd, published in the King's College Hospital Reports, and more recently by discriminating researches of Dr. Hughlings Jackson, and those of Dr. Buzzard, Dr. Russell, of Birmingham, and Dr. Broadbent. Nor must I omit to mention, as zealous and successful workers at the general subject, the names of Lee, Berkeley Hill, de Méric, and Gascoyen, nor, last, the author of the most recent and, I think, most comprehensive and able treatise on the disease that has yet appeared, Dr. Bäumler, whom we would gladly claim as, at any rate in training, half an Englishman.

The regulation of the discussion which is to follow, and the decision as to the precise scope which it shall take, will, I am glad to know, rest in much abler hands than mine. That I may not, however, fail of any part of my duty as its introducer, I have endeavoured to epitomise under the following heads some of the chief points raised in my paper. It will be seen that they are by no means closely connected; and that it will be quite competent for any speaker, if he prefer, to confine his attention to a single one, upon which he may be in possession of special facts, without adverting to the others.

Are there any facts which favour the belief that syphilis continues to be a blood-disease after the cessation of all tendency to produce symmetrical symptoms?

The dearth of facts illustrating the internal pathology of the secondary stage of acquired syphilis.

The importance of all facts or arguments for or against the belief that the gummata of the tertiary stage are purely local, and result from renewed growth in formations left over from the exanthem stage.

The value of facts as to the pathology of the late periods of inherited syphilis.

I must not take my seat without briefly but very sincerely

thanking the Council for the honour done me in selecting me to open this debate, and for the pleasure which has been afforded me under the stimulus of so important an occasion in putting together the remarks which I have just read.

REMARKS

ON A NEW ATTEMPT TO ESTABLISH THE TRUTH OF THE GERM THEORY.

BY H. CHARLTON BASTIAN, M.A., M.D., F.R.S.,

PROFESSOR OF PATHOLOGICAL ANATOMY IN UNIVERSITY COLLEGE, PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, AND SENIOR ASSISTANT PHYSICIAN TO THE HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

THE abstract of Professor Tyndall's communication made to the Royal Society on Jan. 13th, and of his Friday evening's discourse at the Royal Institution in the following week, has been published in two journals, and it is evident that he seeks to exert a powerful influence on public opinion generally as well as on the medical profession, against the possibility of what is termed "spontaneous generation" and in favour of the germ theory of disease. Any views on this subject coming in a very emphatic form from so distinguished a cultivator of physical science, were likely to attract much attention, so that it especially behoved him to look carefully into the present state of knowledge concerning it. It is, moreover, incumbent upon others to weigh his views and conclusions upon their own merits, and not to be unduly influenced by his great reputation and the authoritative mode in which his opinions are uttered. The formation of correct notions upon this subject is of enormous importance both as regards the science and practice of medicine.

It will be found, however, more especially necessary to scrutinise Prof. Tyndall's conclusions on this subject, because he has based them almost wholly upon his own experiments, and has made a very insufficient reference to, and apparently a very insufficient study of, the previously recorded work of other investigators.

His own experiments are divisible into two categories. First, he studies the results of exposing previously boiled organic infusions to the influence of ordinary air; and, secondly, the effect of exposing similar infusions to pure air—that is, to air deprived of the particles which it usually contains in suspension.

The determination to abide by the isolated results of his recent investigations is seen, in a remarkable manner, even in reference to those of the first series. Organic infusions were gravely placed in the hands of the President of the Royal Society, of Mr. Darwin, Mr. Hirst, Sir John Lubbock, and other friends not very far from London, to be exposed by them to the air of the places in which they lived. Though Prof. Tyndall "had no reason to doubt the general diffusion of germs in the atmosphere, he thought it desirable to place the point beyond question." Noting, by the way, that for the word "germs" the cautious reader should substitute "atmospheric particles," it may be stated that the infusions entrusted to these eminent persons became turbid in the ordinary manner. Thus Prof. Tyndall had the satisfaction of getting additional confirmation of a fact which is almost as well known to those whom it concerns as that the letter B follows the letter A in the alphabet. He, too, now regards it as established that previously boiled organic infusions will sooner or later putrefy on exposure to ordinary air.

We come next to Professor Tyndall's second series of experiments. In these, infusions similar to those of the first set, as well as others of a different nature, were exposed to air which had been deprived of its particles by allowing them to subside within certain rather elaborate, closed chambers. In all cases such protected infusions remained pure; hence, Professor Tyndall concludes, as M. Pasteur concluded fifteen years ago, that atmospheric particles, commonly known as "germs," are the sole causes of putrefaction in boiled organic fluids. It follows, therefore, as a corollary from this doctrine, that such fluids when effectually guarded from contact with atmospheric dust will remain permanently pure and free from living organisms.

So far as the results themselves go, they are quite familiar, and their occurrence has been well attested by numerous antecedent workers. It is widely recognised that many organic infusions will remain barren when, after previous boiling, they are kept from contact with atmospheric dust; and any experimenter could, without much difficulty, in the course of a few months obtain five thousand of such results, and add them to the five or six hundred recently obtained by Professor Tyndall. But what end would be gained thereby? The explanation of these experiments is easy. The fermentability of the infusions yielding such results is destroyed because the process of boiling kills all the living germs they may have contained, and at the same time impairs the virtues of the dissolved organic matter. Hence it happens that in the absence of exciting agencies, in the form either of mere unheated organic fragments, or of actual living germs dropping into them from without, they will remain for an indefinite time free from any very appreciable changes. The germ theorists attribute the barrenness of the infusions solely to absence of living germs, whilst their opponents say it may be owing just as much to the absence of the unheated organic particles forming part of the organic débris which enters so largely into the composition of atmospheric dust.

Now, Professor Tyndall believes that the potencies of previously boiled organic fluids are limited in the manner above stated, and that none of them are self-fermentable. The incitors of fermentation in a previously boiled fluid are, he maintains, invariably derived from atmospheric dust, and he further holds that the only constituents of it capable of exciting fermentation or putrefaction are actual living germs. Because I have obtained results contrary to those of his second series, and tending to show that many previously boiled fluids are self-fermentable, he avers that such results must be due to errors of experiment or of observation.

In contrasting his own results with mine, Prof. Tyndall further says, more or less explicitly, that he has strictly adhered to the experimental conditions prescribed by me, and it is because of his failure to get positive results in the experiments of his second series (which he regards as comparable with mine) that he now proclaims "spontaneous generation" a chimera, and my experimental results to have been vitiated by error. But looking to my works, "The Modes of Origin of Lowest Organisms" (p. 67), and "The Beginnings of Life" (vol. ii., p. xxx.), where directions are given concerning the manner of conducting the experiments, I find it stated very prominently that after the infusions had been boiled they were subjected to "a temperature of 80° to 95° F. during both day and night." Now, Prof. Tyndall's mode of strictly imitating these conditions is to maintain his own infusions at "a temperature of 60° to 70° F." But the maintenance of the infusions at a sufficiently high temperature after boiling is of immense importance. I have, indeed, recently found that some infusions which remain sterile within hermetically sealed vessels at 90° F. or higher, may not unfrequently be made to putrefy if exposed for a few days to the still higher temperature of 115° F.

In the preface to the smaller work above mentioned I said, in 1871:—"In these experiments with heated fluids in closed flasks nothing is easier than to obtain negative results. The same kinds of infusions which—if care has been taken to obtain them strong enough—will in a few days teem with living organisms, often show no trace of living things after much longer periods when the solutions are weak." Now, looking to the very striking manner in which Prof. Tyndall has departed from the experimental conditions which he professes to have followed in respect of temperature, how is it possible to have full confidence that he has prepared the infusions in the manner prescribed? For my own part, I feel no assurance that he has bestowed sufficient care upon them—that is, so as to obtain them of adequate strength.

It will have been seen that one of the principal differences as regards facts existing between Prof. Tyndall and myself is on the question whether there are or are not certain organic infusions which, after boiling, can be made to putrefy on exposure to pure air. He, arguing from the basis of his own imperfectly conducted experiments, declares

that he has not met with such fluids, whilst I and others affirm that many fluids of this type exist, some of which are in the strictest sense self-fermentable, since they will ferment or putrefy not only when protected from atmospheric dust, but when shut off in a sealed vessel away even from contact with pure air.

From my work entitled "Evolution and the Origin of Life," published in the winter of 1874, Professor Tyndall quotes the following passage from p. 94:—"We now know that boiled turnip or hay infusions exposed to ordinary air, exposed to filtered air, to calcined air, or shut off altogether from contact with air, are more or less prone to swarm with bacteria and vibriones in the course of from two to six days." Then he himself adds: "Who the 'we' are who possess this knowledge is not stated." Prof. Tyndall thus tends to convey the impression that the possibility of obtaining such results is not known and acknowledged by well-informed men of science. Immediately afterwards he refers to experiments of his own in which (doubtless from such causes as I have already indicated) he was unsuccessful in obtaining similar results, and from the doubly insecure basis of his own lack of learning and want of attention to prescribed conditions, he comes to the conclusion that I have been deceiving myself and others in making such statements. He refers, moreover, to a statement of mine made last year in opening the debate "On the Germ Theory of Disease" at the Pathological Society, to the effect that carefully prepared infusions of muscle, kidney, and liver would, after a time, become corrupt within vessels which had been hermetically sealed whilst the fluids were boiling. (See Transactions of the Pathological Society, vol. xxvi., p. 272.) Professor Tyndall made, in his own fashion, many experiments of this kind; and he records one hundred and thirty-nine failures to obtain such results as I have indicated. He says, with crushing severity, "not one of this cloud of witnesses offered the least countenance" to the truth of my assertions.

Now, if it did not concern so grave a question, all this would be truly laughable. It certainly seems far more like burlesque than the sober pursuit of science. But since Prof. Tyndall says he does not know who can be comprised under the "we" which I employ in the quotation above given, and as he consequently does not tell his readers, it seems desirable, now that the question is asked, for me to try to enlighten him: they may not require it.

Some of the various methods of testing the behaviour of boiled organic fluids when kept free from atmospheric particles are mentioned in the passage quoted by Prof. Tyndall, and his own method of subsidence belongs to this series, which, more fully stated, would stand as follows:—

(*a*) Making the air pass through red-hot tubes—calcination.

(*b*) Making it pass through cotton wool or a plate of porous porcelain—filtration.

(*c*) Allowing atmospheric particles to gravitate—subsidence.

(*d*) Making air pass into flasks through long and bent necks—filtration and subsidence combined.

(*e*) Getting rid of air and its particles by sealing the neck of vessel during ebullition of the fluid—expulsion.

I now subjoin a list of investigators who, by experimenting in one or more of these ways, have come to the conclusion that certain fluids exposed to such conditions will putrefy—although Prof. Tyndall thinks they ought all to remain pure. What explanations these investigators severally give of the facts they record are questions which need not now detain us, since it is the facts themselves which Prof. Tyndall ignores, and in effect denies.

1. Schwann: *Isis*, 1837; and *Poggendorf's Annalen*, 1837.
2. Mantegazza: *Giorn. dell R. Istit. Lombardo*, III., 1851.
3. Schroeder and Dusch: *Annal. de Chimie*, t. xli., 1854.
4. Schroeder: *Liebig's Annalen*, cix., 1859; and *Chem. News*, vol. v., 1862.
5. Pouchet: *Hétérogénie*, 1859; and *Nouvelles Expériences*, 1864.
6. Pasteur: *Ann. de Chimie*, 1862; see pp. 60–62.
7. Joly and Musset: *Compt. Rend.*, 1861 and 1862.
8. Victor Meunier: *Compt. Rend.*, t. lxi., 1865.
9. Hughes Bennett: *Edinb. Med. Jour.*, 1868.
10. Cantoni: *Gas. Med. Ital. Lombard.*, t. i., 1868.
11. Bastian: *Nature*, 1870; *Modes of Origin of Lowest Organisms*, 1871; *The Beginnings of Life*, 1872.
12. Burdon Sanderson: *Nature*, January 8th, and June, 1873; *Med. Times and Gaz.*, October 22nd, 1873.
13. Huizinga: *Nature*, March 20th, 1873; *Pflüger's Archiv*, vols. vii. and viii.
14. Lankester and Pode: *Proceed. of Royal Society*, vol. xxi., 1873.
15. Roberts: *Phil. Trans.*, vol. clxiv., 1874.
16. Samuelson: *Pflüger's Archiv*, vol. vii., 1873.
17. Gscheidlen. Quoted by Dr. Sanderson in *Academy*, July 10th, 1875.

I have set down the names in order of time, and included my own amongst them, because those mentioned after me have all confirmed my results with regard to the putrefaction of some fluids in hermetically sealed vessels from which the air has been expelled by boiling—the very experiments, in fact, which Professor Tyndall (like one awaking from a three years' sleep) now endeavours to impeach by his own one hundred and thirty-nine failures.

Dr. Burdon Sanderson's well-known corroboration of the accuracy of my results may be here reproduced. He says:—"The accuracy of Dr. Bastian's statement of fact with reference to the particular experiments now under consideration has been publicly questioned. I myself doubted it, and expressed my doubts, if not publicly, at least in conversation. I am content to have established—at all events to my own satisfaction—that, by following Dr. Bastian's directions, infusions can be prepared which are not deprived, by an ebullition of from five to ten minutes, of the faculty of undergoing those chemical changes which are characterised by the presence of swarms of bacteria, and that the development of these organisms can proceed with greatest activity in hermetically sealed glass vessels from which almost the whole of the air has been expelled by boiling."*—(*Nature*, Jan. 8th, 1873.)

And if Prof. Tyndall and others wish to know how far these results have since been generally recognised as correct, reference may be made to a review of my work "Evolution and the Origin of Life," by Dr. Burdon-Sanderson, in the *Academy* of July 10th, 1875. There, in reference to the confirmation which these experiments had received, and in relation to other work in connexion with the question generally by S. Samuelson and Gscheidlen, Dr. Sanderson writes: "As regards the trustworthy character of the experiments themselves, it will probably be a sufficient guarantee to most readers that they have been conducted under the immediate supervision of men like Pflüger and Hoppe Seyler, who occupy the foremost rank as vital physicists. Those who are more especially interested in the subject will best satisfy themselves of the exactitude and completeness with which all the investigations have been carried out by reading for themselves the original papers."

Although Dr. Sanderson thus thoroughly recognises the fact (and knows that others do the same), that many boiled fluids will putrefy in closed vessels from which air has been expelled by boiling, it is well known that he is not willing to regard such facts as the proof of the occurrence of "spontaneous generation." He admits, indeed (*British Medical Journal*, February 13th, 1875, p. 201), that I and others have shown that bacteria, in their "ordinary state," are killed by a temperature of about 140° F.; but, instead of accepting "spontaneous generation" as an explanation of the occurrence of living organisms in the vessels above referred to, he pleads in favour of the only other possible explanation—viz., a "latent vitality" in some bacteria germs not extinguishable by exposure for ten minutes or so to the influence of boiling water. I felt it my duty to refer to this hypothesis in my address at the Pathological Society last year (*loc. cit.*, p. 273); but whatever its worth may be, Dr. Sanderson, whose learning and knowledge of the whole question few will dispute, knows that this, or some such hypothesis, alone stands in the way of the acceptance of "spontaneous generation" as a proved reality.

Professor Tyndall, however, seems to regard this hypothesis as beneath his notice. He makes no sort of reference

* It seems desirable, in order to prevent misunderstanding, to make some reference to Dr. Sanderson's cautious use of the word "almost." It would be difficult to ascertain how much air would remain in a small retort, nearly full at first, and in which the fluid was boiled continuously for from five to ten minutes before sealing. The expulsion of air goes no further in the experiments with bent-neck flasks, in those whose necks are plugged with cotton wool, or in those in which the re-entering air is calcined. In my experiments above referred to, instead of purifying the re-entering air, it is shut out by hermetically sealing the flask whilst steam is still issuing.

to it, and agrees with me in thinking that bacteria and their germs are decidedly killed by five minutes' boiling in organic infusions. He still further supports the view held by me in opposition to that of M. Pasteur, that such a result follows both with alkaline and with acid infusions.

This may seem to many of my readers a rather farcical finale, when compared with Prof. Tyndall's own anticipations, but I feel thoroughly assured that those who understand the subject will see that, in the present stage of the controversy, no other conclusions of value are deducible from his recent experiments. He appears to have completely misapprehended the present state of knowledge on the question, has uniformly failed to obtain results which are now firmly established, and, as regards the only question which is at present in dispute, he unhesitatingly coincides with me. If, as Prof. Tyndall believes, and as his experiments seem to show, bacteria and their germs are killed by boiling them for five minutes, nothing remains but for us to shake hands over the establishment of the occurrence of "spontaneous generation," and the overthrow of the Germ Theory of Disease. I shall be heartily glad to take leave of the subject, as I have now little leisure available for following up questions of this kind, upon which I have already bestowed so much time and labour.

ON A CASE OF

DORSAL DISLOCATION OF THE HEAD OF THE FEMUR, WITH EVERSION OF THE LIMB.

BY THOMAS ANNANDALE, F.R.S.E.,

SURGEON TO THE EDINBURGH ROYAL INFIRMARY, AND LECTURER ON CLINICAL SURGERY.

M. M——, aged twenty-nine, a sailor, was admitted into my wards on the 22nd of December last, on account of an injury to his left hip.

The history of his case was that six weeks before admission a bale of goods fell upon him while he was working in a stooping position. Being at sea at the time, he received no treatment except rest.

When examined, on admission, the injured limb was found to be shortened three-quarters of an inch and *everted* to its full extent. The whole limb was fixed in this everted condition. The great trochanter was displaced upwards and backwards, and the head of the bone could be felt over the situation of the sciatic notch. In addition to these symptoms, Mr. Syme's characteristic sign of sciatic dislocation was present—namely, that the injured limb could not be straightened without an arching of the spine. If the spine was straightened the thigh became flexed, and if the thigh was straightened the spine became arched. No crepitation could be detected. Having from all these symptoms diagnosed a sciatic or dorsal dislocation, the patient was put under chloroform on the 24th of December, and the manipulative method of reduction practised. The bone was readily reduced by flexing and adducting the limb and then making it take a sweep outwards, but it also readily slipped out of the acetabulum again when the limb was moved; and in order to prevent its displacement a long thigh-splint was applied and retained for a month. At the end of this time the patient was allowed to rise from bed and use crutches, and two weeks afterwards he was dismissed to the Convalescent Hospital, being able to bear considerable weight on the limb. When the limb was examined before his dismissal it was found to be natural in length and position, and it admitted of free flexion, extension, adduction, and abduction at the hip. The only symptom complained of was some weakness of the whole limb, but this was gradually passing off.

Remarks.—The occurrence of eversion of the limb in cases of dorsal dislocation of the head of the femur is quite exceptional. The proof that this was a dislocation is that when the bone was reduced the limb became natural in length, position, and mobility. Bigelow, at page 100 of his valuable work on the Hip, refers to this form of dislocation, and considers that the unusual symptom of eversion depends on a more complete rupture of the capsular ligament, especially of that portion which forms the outer branch of the Y ligament. Reduction in the case reported was more easily accomplished than is usual in this form of dislocation, for in the cases reported by Bigelow considerable difficulty was met with in returning the bone to the acetabulum. Another interesting point in this case is, that reduction was so readily accomplished at the end of six weeks after the injury.

Edinburgh.

SUCCESSFUL EMPLOYMENT OF

PHOSPHIDE OF ZINC IN A CASE OF MERCURIAL TREMOR, AND IN ONE OF CHRONIC ARSENICAL INTOXICATION.

BY DR. NOEL GUÉNEAU DE MUSSY,

PHYSICIAN TO THE HÔTEL DIEU.

PHOSPHORUS has taken, during the last few years, a most important place in therapeutics, both as modifying the nervous system and improving its impaired nutrition.

About eight or ten years ago, M. Vigier, a very learned chemist of Paris, pointed out the advantages of phosphide of zinc. This preparation is much more stable, more definite, and more easily handled than phosphoric oil, which is commonly employed. Whilst the phosphoric oil is very easily altered by oxidation, and untrustworthy in its effects, no variation of power, no change of composition takes place in the phosphide of zinc.

Four milligrammes of this substance contain one milligramme of phosphorus, but in reality, according to the researches of M. Vigier, the physiological action is equivalent to only half a milligramme. I always prescribe two pills of four milligrammes each to begin with, and proceed gradually to six pills when the physiological effects, which must be carefully observed, do not seem to be sufficiently marked. If any signs of intolerance appear, I suspend the course for some days, to begin again afterwards in the same way. Generally, after twelve or fifteen days I allow the patient to take rest, and discontinue the medicine during four or five days.

About ten years ago I had occasion to relate in the *Gazette Médicale*, and later on in my clinical lectures, the successful employment which I made of this substance in cases of tremor. A very striking case of this description has recently presented itself to me.

For more than six weeks the patient had been affected with a violent quivering of the limbs, which made him quite an invalid. He could not help himself in any way; and even when his arms were resting, lying on the bed, the trembling did not subside. He also complained of pains in his back, and his face was red and flushed. The gums were red, swollen, and bordered with a purple rim. Fearing, from the spinal pains, that the specific poisoning of the nervous system was attended with a congestive process, I did not venture to give phosphide of zinc immediately, but prescribed a purgative, and applied two small cauteries to the base of the neck. After some days, the pain being relieved and the symptoms of irritation somewhat abated, I prescribed two pills of the phosphide of four milligrammes each. After two days of this treatment, such was the improvement in the patient's health that he could walk alone and eat without being helped; and a few days later he found himself so well, though he was not completely rid of a slight trembling, that he insisted on leaving the hospital.

Another case lately occurred in my wards which gave me an opportunity of testing the modifying action produced on the nervous system by phosphide of zinc. A man of fifty years of age came into my wards complaining of pain and weakness in the back and limbs. He had not been able to walk or stand for one month. The left leg was much weaker than the right. This weakness extended to both arms, but was much more marked in the left one, which could not retain hold of anything, and presented signs of paralysis of the extensor muscles, and especially of the last three fingers. Sight and hearing were also much impaired on the left side. Tactile sensibility of the skin, in-

vestigated by means of the æsthesiometer, was rather dull, though very slightly so. No alteration was noticed in the perception of heat, or weight, or pain. The vaso-motor action seemed impaired in the integuments of the hands, which were stained of a reddish-blue colour. Pressure on the larger nervous branches, and especially along the vertebral grooves, excited such pain that the patient would start and scream. He had been employed in a manufacture of aniline-red, and had thus been exposed to arsenical vapours. This circumstance, and the recollection of a pamphlet lately published by Dr. Scolosuboff, of Moscow, led me to suspect that the nervous disorders observed in this case might depend on poisoning of the system with arsenic; and, indeed, the analysis of the patient's urine showed the existence of a large quantity of this substance, and thus confirmed my suspicions. I first ordered some baths and the internal use of a mixture of sulphur and honey, in order to eliminate any remains of the poison deposited on the integuments; I then prescribed the phosphorated pills, and after three or four days I noticed a great improvement in the condition of the patient. He could walk and make use of his hands, the pains were abated, and the general appearance was much more satisfactory. After a fortnight he could distinguish with his left eye small printed characters, whilst he was unable before to make out even the largest type; he was also able to discern colours which hitherto had appeared quite confused to him. The patient is still under my care, and feels every day better, though the strength of the left limbs and of the extensor muscles is not yet quite restored.

In the above case some points deserve to be especially noticed. Paralysis, though general, was more marked on one side, constituting real hemiplegia, and extending to the organs of sense. The very interesting researches made by Dr. Scolosuboff, with the result of showing that the poison mostly accumulates in the nervous centres, can explain the fact, whilst the rapidity of the patient's recovery indicates that, notwithstanding the gravity of the symptoms, no deep lesion of the organic structures had taken place.

Paris.

CASE OF SUCCESSFUL SKIN-GRAFTING AFTER AMPUTATION.

BY STAFF-SURGEON WM. H. LLOYD, M.D., R.N.,
IN CHARGE OF THE ROYAL NAVAL HOSPITAL AT LISBON.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

C. Y——, aged forty-three, A B, H.M.S. *Triumph*, was admitted on May 12th, 1873, with compound and comminuted fractures of both legs, a heavy spar having fallen across them. The left tibia was badly fractured in two places, the ankle-joint being injured. An attempt was made to save the limb, but extensive sloughing took place, and on May 19th, the seventh day after the accident, a large patch of gangrene appearing on the front of the leg, amputation became necessary. The operation was performed by the circular method, in the absence of sound material for flaps, and as close to the knee-joint as possible. There was only just enough skin (apparently sound) to cover the ends of the bones, and on this being turned up, the subcutaneous cellular tissue was found to be infiltrated with blood, though there was no external appearance of ecchymosis. A few days after the operation nearly all the surface of the flap sloughed, and the skin over the front of the remnant of the tibia became so soft and tender that it would not bear any pressure, even sticking-plaster breaking it down.

On June 9th the condition of the part was as follows:—"The face of the stump is now almost uncovered by skin; the end of the tibia is prominent, and seems about to protrude through the soft parts, the whole circumference of the sharp cut edge being clearly defined in a weakly granulating and sloughing surface; the anterior portion of the cut edge of the bone is uncovered to the extent of an inch in length, and the end of the fibula is exposed. The surrounding skin appears dragged away from the wound, and that over the front of the tibia, all round its tubercle, is livid, soft, and shining, and pitted by some small abrasions, which seem likely to increase in size."

Six small skin-grafts were inserted in the most promising spots amongst the granulations, and lightly covered with lint wet with carbolic acid solution (1 to 40). The limb was placed on a pillow, a few turns of a bandage being very lightly applied. Four of the first six grafts adhered, and a few fresh ones were inserted every alternate day. It was wonderful to see how quickly the influence of the fresh material was felt. By the 18th of June—nine days after the first grafting—the tibia was much less prominent, and the skin round the stump less dragged, and apparently rising to meet the new growths. The grafts were taken from the front of the thighs. Pieces of skin of the circumference of a grain of hempseed were pinched up with a fine forceps, and snipped off as thinly as possible with a pair of scissors—blood never being drawn. They were placed on any spot in which the action seemed healthy enough to give a chance for their development, and perhaps a hundred may have been employed during the treatment, of which of course a large number were unsuccessful. In from forty-eight hours to three days the blue shade round the edges of the grafts, which showed their success, might generally be observed. This treatment was persisted in up to the end of July, by which time the stump was nearly healed, the exposed portion of the tibia was separating, and a quarter of an inch of the end of the fibula had exfoliated.

Sept. 28th.—Stump solidly healed, with a very good covering for the situation. The skin is adherent over the end of the tibia, but fairly plump, and not tender. During all this time the fracture of the right leg (compound and comminuted, with a large wound, about the middle of the limb) was being treated in a Salter's swing, and proved very tedious; the suppuration was profuse, and five sequestra from the tibia were from time to time removed, the last occasion being on the 7th of November, when a large piece, lying deep in the shaft of the tibia, required the removal of some sound bone for its extraction.

During the progress of the case his general health was fairly good, and he was fortunately able all through to assimilate the large quantity of support required.

By the 24th of December he was able to bear his weight on his right leg, and get about on crutches; and on Dec. 27th, after being seven months and a half under treatment, he was sent to England, and was soon afterwards able to go about on a wooden leg.

It seemed at one time as if extensive protrusion of the bone must occur, and I cannot believe that any other treatment than skin-grafting could have prevented it. Had this taken place, considering the state of the integument about the head of the tibia, and the close proximity to the knee-joint, it seems highly probable that amputation of the thigh would have become necessary, which proceeding, in his exhausted condition, and with the severe complication in the fracture of the other leg, must have been a most unfavourable operation.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collegisse habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

NOTES ON SURGICAL CASES.

(Under the care of Mr. HAYNES WALTON.)

IT is important to note that, in the second of the subjoined cases, ligature of the femoral artery speedily cured a popliteal aneurism in which compression had previously failed. During the last few years we have published, in the Mirror, the notes of many similar cases, which are not only valuable in themselves, but serve to correct an opinion

entertained by some authorities, that a previous trial of compression lessens the chances of success of subsequent ligature. It does often happen that ligature fails after compression has been tried, but not on that account. It is most probable that the nature of the aneurism, and the conditions of the various tissues of the body, are the essential factors in the cause of the failure—factors that would be equally operative under any mode of local treatment.

For the notes of the following cases we are indebted to Mr. Jackson Gawith, house-surgeon.

Nævus of the Tongue; ligature; cure.—The patient, a male aged twenty-six, healthy and robust, was admitted with a tumour growing on the left side of the upper part of the base of the tongue. The natural aspect of the tumour was somewhat destroyed by an attempt which had been made to remove the growth, the operator having abandoned his intention on account of severe bleeding which followed the first incision. After a careful examination, Mr. Walton decided that he had before him an example of a nævus of the tongue. He founded his diagnosis on the following facts: the long existence of the tumour, for the patient remembered having had it for twelve years; its prominence and sharp outline; its erectile-tissue-like structure, and the reduction of its bulk by pressure; and, lastly, the bleeding above referred to when the knife was used. Mr. Walton determined to operate by the process of ligaturing, and applied his quadruple symmetrical noose, taking care that the ligatures were carried sufficiently deep. On the second day hæmorrhage set in, but it was quickly stopped by the application of the tincture of the perchloride of iron. On the sixth day the tumour fell off, no hæmorrhage ensuing, leaving a clean raw surface. Cicatrisation proceeded rapidly, and the patient left the hospital on the eleventh day, the wound having very nearly healed. Four days later healing was completed, and there was no undue hardness of the tongue.

Nævus of the tongue is undoubtedly rare. Mr. Walton remarked that he had met with only one other instance in which it was deemed prudent to operate; in that also, ligaturing was employed. There could, in his opinion, be little doubt that, as a rule, the ligature is superior to the other methods of treatment.

Popliteal Aneurism; failure of compression; ligature of femoral artery; recovery. — The aneurism occurred in a mechanic, aged forty-five, without any known cause. A swelling in the right popliteal space led to the discovery of the disease, which was pronounced to be an aneurism. The foot and leg were already swollen, while the aneurism was large and the sac thin. In the course of some clinical remarks, Mr. Walton said that, although he would try the treatment of compression, he thought that the interests of his patient would be best served by tying the femoral artery at once. It was to be understood that this little wavering on his part would make him watch the case narrowly. Pressure was applied to the femoral artery by means of a metallic tourniquet with adjusting rack-work, and very carefully looked after. With all the supervision that was exercised, the patient found the pressure more than he could bear, and with his distress the swelling of the leg increased in a very marked manner. All the while during eight days the aneurism did not consolidate, and the femoral artery was then tied in the usual place, care having been taken not to open the fascial sheath of the sartorius muscle, to place the ligature as low as it was possible, and to disturb the arterial cellular sheath no more than was necessary for the passage of the aneurismal needle. The wound was carefully stitched together, and covered with lint and a bandage. No antiseptics were used. The progress of the case was quick and uninterrupted. On the fifth day, when the cotton-wool packing was temporarily removed from the foot and leg for the purpose of inspection, it was discovered that the swelling was very much less. The wound healed by first intention, except where the ligature hung out of it; the ligature separated on the fourteenth day. In a month from his admission the patient left the hospital well, and with but a small trace of the aneurism, as a hard lump in the ham. He never returned to make any report of himself.

GENERAL HOSPITAL, BIRMINGHAM.

CASE OF PERFORATING ULCER OF THE BLADDER; AUTOPSY; REMARKS.

(Under the care of Mr. T. H. BARTLEET.)

FOR the notes of the following rare and interesting case we are indebted to Dr. Bindley, resident pathologist to the hospital. We would draw especial attention to the careful and exact record of the morbid anatomy of the case, and to the valuable and ingenious suggestions made by Mr. Bartleet at the post-mortem examination.

On the evening of Oct. 14th, 1875, W. F——, an engineer, aged fifty-three, stooped down to take up from the ground a bar of iron, the downward and forward movement of the body being very suddenly and rapidly performed. Just as the act of bending was complete he experienced a severe pain at the lower part of the abdomen, which led him to desist, and he did not attempt to raise the metal. The pain continued more or less during the night; in the morning he found that he was unable to pass his urine, and applied to a practitioner in the neighbourhood, who drew it off with a catheter. During the day the pain gradually increased in severity; retention of urine recurred, and a catheter was again passed. On the following day the man presented himself at the out-patient department of the hospital; he walked into the room doubled up, with his hands on his abdomen, looked very anxious, and complained of great pain above the pubes. Eight ounces of dark concentrated urine were drawn off with a catheter, which afforded some relief; but Mr. Bartleet considered that the amount of vital depression present, and the anxious countenance, seemed to betoken something far more serious than mere retention of urine, and admitted the man as an in-patient. His previous history threw no light on his present condition, for, with the exception of a slight attack of retention of urine five years previously, from which he recovered in three days, he stated that he had always enjoyed excellent health, and followed his occupation uninterruptedly. The man was put to bed, and ordered a grain of opium night and morning. He was very uneasy and restless all night, getting only a little sleep; felt sick, and retched a good deal; bowels not moved; pulse small, 98; temperature normal.

On the morning of the 16th a careful examination of the abdomen was instituted. There was no very marked and superficial tenderness to indicate that the peritoneum was acutely inflamed; on the contrary, the pain appeared deeply seated, more or less obscure and undefined. When asked to point out where he felt pain, the patient passed his hand backwards and forwards over the abdominal walls, below the umbilicus, and failed to particularise any one spot as being the most painful. There was no sign of hernia, either inguinal or femoral, on either side, nor was there any fulness at the upper part of the thigh or pain down the leg to suggest the presence of a loop of intestine entangled in the obturator foramen.

17th.—Ordered a large poultice over abdomen, and five drops of oil of turpentine every hour, and an enema containing one drachm of tincture of assafœtida and half an ounce of castor oil in a pint of gruel. The whole of the enema was retained.

18th.—Still very restless, though he does not appear to be suffering a great amount of pain. He was sick once in the night, and belched up a large quantity of flatus. Pulse 112, getting smaller; the extremities were cold; temperature 97·1°. A further examination of the abdomen revealed no new feature. He still complained of pain and tenderness in the suprapubic region; but offered no objection when it was proposed to make an examination of the abdomen, nor did he resent it even by expression of countenance or gesture, except when pressure sufficient to depress the abdominal walls considerably was exerted. But in drawing off the urine this evening, when the handle of the catheter was being lowered between the thighs, and its point thus brought into contact with the upper part of the bladder, the patient complained of very acute pain, so that in future the catheter had always to be held vertically, and the bladder emptied by pressure on the abdomen.

19th.—Worse. Is unable to take anything but soda-water with two ounces of brandy a day, and occasionally a teaspoonful of milk. The urine is highly albuminous, and con-

tains pus in small quantity; no casts. To-day he complains of more pain in his abdomen.

20th.—An enema of two pints brought away a small lump of formed fæces of normal appearance. He slept very little; vomited about a quart of bile-stained fluid, not in the least stercoraceous; countenance more pinched and sunken; some tympanites; pulse small and thready, difficult to count, but about 120; temperature 96·4°.

He died on the 22nd, at 12.30 A.M., his mind being clear to the last.

Autopsy.—As the abdominal walls were being reflected, a slight sticky adhesiveness was found between their inner surface and the omentum; the parietal peritoneum was generally reddened, minutely injected in patches, with a few small scattered ecchymoses; some colourless lymph could be scraped off its surface with a knife. The omentum completely hid the intestines, and was tucked down well into the pelvis; it had a dull semi-translucent aspect, was swollen, reddened, and the vessels, which appeared to be very numerous, looked dilated. On lifting it from the pelvis, slight adhesions of recent lymph were found to exist, chiefly at the right side, and the part which was drawn out was greatly thickened, quite succulent, purplish-red, and more or less rotten. As it was being turned back no distinct lymph adhesions were noticeable, but it had a sticky connexion with the parts beneath—fine threads, like spun glass, drawing out for a quarter of an inch before giving way. The intestines, laid bare, were in much the same condition, sticky, greasy, and red, especially near the pubes. On gently separating the coils, solid flakes of yellowish lymph were here and there found, but no pus. Just above the pubes the intestines had the appearance of being badly packed. Examination of the parts in the pelvis revealed a remarkable morbid condition. Solid lymph matted the organs together. Coils of ileum were adherent to the pelvic walls, and entangled the vermiform appendix. That part of the ileum which abutted against the bladder, about an inch from its apex, was surrounded with a great clump of lymph, recent and solid, though in separating its layers, so as to free the ileum, the middle was found to be much less firm, approaching to a purulent condition, and of a greenish colour. Before the separation was fairly complete, a hole appeared, oval, half an inch by three-eighths, in the bladder-wall, clean cut except a few yellow specks of lymph, which stuck to its edge. The pelvic aspect of the cæcum was coated with lymph. The rectum was enveloped with layer upon layer of solid lymph, for the most part blood-stained, and this, together with the infiltrated and swollen subperitoneal areolar tissue surrounding the rectum, was more than an inch in thickness. Some patches of solid lymph were attached to the sigmoid flexure.

Bladder removed: coats somewhat thickened; exactly in the middle line on its posterior aspect, an inch from its apex, and corresponding to the hole mentioned above, was an ulcer, which bore an exact resemblance to a chronic gastric ulcer; distinct loss of substance, as if a piece had been punched out, funnel-shaped, smooth edges; at one side was some puckering. The vesical mucous membrane generally was swollen and patchy red. Liver fatty and much congested; weight ninety ounces. Kidneys congested; weight seven ounces and a quarter each. Owing to the inflammatory infiltration of their muscular coats, the intestines were distended, the sigmoid flexure and ileum markedly so.

At the post-mortem Mr. Bartleet commented on the many peculiarities of the case, when a comparison was drawn between the symptoms which were presented during life and the revealed pathological condition. The sequence of events was probably as follows:—The ulcer of the bladder obviously dated further back than the present illness, and had apparently gone through all its stages without any symptoms, and while the patient continued to follow his accustomed occupation. No doubt previous to the separation of the slough and complete perforation of the coats of the bladder, a chronic inflammatory action was set up, and the ileum became adherent to the vesical wall, which prevented escape of urine into the cavity of the peritoneum. Now the man distinctly stated that when he made the sudden stooping movement, he felt a sharp pain in the lower part of his abdomen, and there seems every reason to believe that at that moment a laceration took place between the intestine and bladder, where the two had become adherent—only a slight laceration, for they were still in close apposition at the time of death, but sufficient to allow urine, possibly only a few drops, to be discharged into the peritoneal cavity, and set up an acute peritonitis. It is a remarkable anomaly that the abdominal pain never attained a high grade. The man himself indicated its seat with his hand instead of with his voice, and even a few hours before death the bladder was emptied, not by depressing the catheter, but by depressing the abdominal walls. He voluntarily shifted his position in bed, sometimes lying on his side, sometimes on his back, and when told to draw up his knees did so without complaint. His temperature was never above normal. In reference to the diagnosis of peritonitis, it would seem that the fact that two enemata of a pint each were completely retained, when coupled with retention of urine, is a feature of considerable value, as indicating paralysis of the muscular coats of the lower bowel and the bladder; for the general symptoms of the case appeared to point to an acute strangulation of the intestines, certainly not to an acute peritonitis.

CARDIFF INFIRMARY.

UNREDUCED DISLOCATION OF THE HEAD OF THE HUMERUS OF ONE MONTH'S STANDING; QUESTION OF FRACTURE.

(Under the care of Dr. SHEEN.)

THERE are few injuries the diagnosis of which is more obscure, or the treatment of which is more difficult, than that of dislocation of the head of humerus, complicated with fracture of the bone near the surgical, or through the anatomical, neck. If the nature of the case be recognised, it is doubtless the best practice to completely anæsthetise the patient, and to reduce the head of the bone by manipulation, and then to treat the case as one of fracture. The surgeon should always satisfy himself that the head of the bone has been replaced, as it is certain that there is no time or opportunity so favourable for the reduction of a dislocation as that which immediately follows the infliction of the injury.

T. H. D——, aged fifty-four, was admitted on August 27th, 1875. He stated that he fell off a waggon of hay a month ago, striking his left elbow against a wall as he fell, and that when he got up he found he could not use his arm. A surgeon saw him five hours afterwards, who "pulled his arm, but did him no good," and told him he had broken three of his ribs. His arm was bandaged to his side, but had to be released in three days, as he could not bear the pain. A week or so after the accident he was seen by another medical man, who put his foot in his armpit and dragged at his arm, but failed to "put him right."

On admission, a dislocation of the head of the left humerus into the axilla was recognised. There was no crepitus. The next day chloroform was given to complete muscular relaxation, and the arm was rotated and twisted to break down adhesions which might have formed. A fair amount of force was used, and creaking sounds gave evidence apparently of the adhesions giving way. The limb was then manipulated by extension, rotation, &c., with a view to reduction, but without success. The shoulder was evidently more rounded, but on examining the limb more carefully, and placing the fingers on the head of the bone, the latter was found not to move. It was now apparent that in addition to dislocation there was fracture of the neck. The patient was put to bed with the arm bandaged to the side, and with the elbow well elevated. The next day the shoulder was considerably swollen and painful, and the bandages were removed, and hot fomentations, with tincture of opium, applied, the limb resting on a pillow. So soon as the swelling and pain had subsided, passive motion of the joint was practised daily, and on Sept. 24th he was discharged at his own request with improved mobility at the shoulder.

Remarks.—The interesting question in this case seems to be this: Was there fracture as well as dislocation at the time of the accident, and was the union broken down by manipulation? or was the bone broken by the force used to reduce the dislocation? It could scarcely have been the latter, because the force employed did not seem sufficient. In favour of the former is the *evidence of fracture*, as, accord-

ing to the man's statement, the surgeon who first saw him said he had broken his ribs. Assuming this to be the correct view, we have here a demonstration of the possibility of breaking down union of fractured ends of bones, one month after the accident, without using any great amount of force.

In a recent number of the *Guy's Hospital Gazette* may be found the record of an almost identical case, in which Mr. Howse pursued a similar line of treatment with the same result. He does not mince matters, however, for he says that "in attempting to violently break down the adhesions he fractured the humerus." Dr. Sheen believes that it is scarcely possible to fracture a perfect humerus by such means unless both ends were fixed, and extreme violence used.

LIVERPOOL WORKHOUSE INFIRMARY.

AUTOPSY OF A CASE OF CONGENITAL MALPOSITION OF THE RIGHT KIDNEY.

(By DRS. ALEXANDER and IRVINE.)

IT will perhaps be remembered that a committee was recently appointed by the Pathological Society "to inquire into the matter of movable, floating, and displaced kidneys." The following record is therefore very interesting at this time.

The subject of the post-mortem was a woman aged sixty-three, who had been disabled by a "stroke" five months ago. She had borne children. The disease from which she died had no connexion with the anatomical abnormality. The liver, *both* suprarenal capsules, spleen, pancreas, large and small intestines, and *left* kidney were normal in position, except that the ascending colon had no kidney behind it. The *right* kidney was found projecting above the brim of the pelvis, a little to the right of the median line, beneath the peritoneum, internal to the right iliac vessels, and resting on the bodies of the last lumbar and first sacral vertebræ. It was irregularly rounded in shape, and less flattened than usual, having a longitudinal depression along the centre of the anterior surface; the upper two-thirds of which lodged an artery derived from the aorta, an inch above its bifurcation, and a vein ending in the vena cava opposite to the commencement of the artery. The lower third of the depression lodged the ureter. Close to where the vessels and ureter entered the kidney a fissure extended obliquely backwards, upwards, and inwards for about an inch. In this lay the left branch of the ureter and the termination of a large artery derived from the inner side of the left common iliac, and a vein which, running over the left common iliac artery, passed beneath the aorta to terminate in the vena cava. Entering the posterior flattened surface of the organ was observed another small artery and vein, derived respectively from the right common iliac artery and vein. The ureter passed directly to the bladder over the structures contained in the broad ligament and internal to the ovary.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on the 1st inst., the President, Mr. G. Pollock, in the chair. The attendance of members and visitors was very large, and the broad and philosophic address delivered by Mr. Jonathan Hutchinson, in opening a debate upon the Pathology of Syphilis, was listened to with marked attention. The debate can hardly be considered to have been commenced on this occasion at all, for neither the brief remarks of Mr. Henry Lee, who contented himself with reiterating his views as to the non-infective character of the soft chancre, nor the more ambitious attempt of Dr. Drysdale, can be said to have thrown much light upon the position taken up by Mr. Hutchinson. It is, we believe, likely that at the next meeting Sir James Paget, Messrs. Simon and Berkeley Hill, Drs. Wilks, Moxon, Hilton Fagge, and others will speak, in which case the numerous questions of pathological importance raised by Mr. Hutchinson will be sure to receive the full and exhaustive criticism they merit.

At the close of the opening address, the President said that the Society and the profession generally were much indebted to Mr. Hutchinson for his paper, upon which he invited discussion.

Mr. HENRY LEE opened the discussion. He concurred in thanking Mr. Hutchinson for the careful and talented manner in which he had introduced the subject; and as the ground he had travelled over was so extensive, he would only touch upon a *few* of the questions raised. The first point he wished to discuss was as to syphilis being a blood-disease. If it were so, and yet the time were limited to the stage to which Mr. Hutchinson apparently desired to confine it, then another definition of a "blood-disease" must be adopted. Although Mr. Hutchinson would limit the definition of syphilis as a blood-disease to the secondary stage, yet he described the appearance of gummata as occurring occasionally at the same time as the secondary eruption. Then in children the later stages in syphilis are frequent; and surely in them the affection was one of the blood; since what stronger proof of this could there be than the transmission of the disease from parent to offspring? Another point was as to the way in which the new matter is deposited in the primary and in the secondary affections. Mr. Hutchinson refers them both to one poison, but he (the speaker) would like to know something more definite concerning the nature of this poison. He himself believed there were three distinct forms of primary affection. In the first there is deposition of new material, circumscribed and accurately defined, not tending to undergo suppuration or ulceration. This is distinctly infective and inoculable. In the second, ulceration takes place at once, leading to a loss of substance never met with in the first variety. In the third there is deposition of new matter, which tends to rapid degeneration, forming a soft sore, which was infective and which, he submitted, Mr. Hutchinson had confounded with the second non-infective sore. This form of affection, the non-recognition of which had led to much confusion, is met with in individuals who, already under the influence of syphilis, became re-inoculated with the virus. The induration stage is rapid and often unperceived, for the ordinary period of incubation does not occur; there is then rapid breaking down, and the formation of a sore simulating the innocuous soft chancre.

Dr. DRYSDALE pointed out that the theory of dualism described by Mr. Hutchinson as being "dead" was indeed a comparatively recent view. It (i.e., the later form of dualism, and not that propounded by Carmichael) was held by almost, if not all, the French observers. He then recapitulated the points in favour of this dualistic theory, remarking that the points of difference between the soft and hard chancre were very great. He agreed with Mr. Hutchinson in allying syphilis to the exanthemata, but he thought that the tertiary manifestations were equally evidence of blood-infection as the secondary eruptions. As bearing upon the view taken by Mr. Hutchinson with regard to the secondary stage, he related a case of hemiplegia in a male the subject of syphilitic roseola. The hemiplegia was right-sided, and the patient has remained permanently aphasic. He had often seen jaundice in the secondary stage, and believed the liver to be frequently affected at that period. He had also seen nodes develop a few months after inoculation. Acquired syphilis in children readily passes away; he had never seen tertiary symptoms develop in such young subjects. He had never met with nervous disease in inherited syphilis, but he had frequently seen tertiary gummata in that variety, and he referred to three cases of children, aged about twelve or thirteen years, in which stricture of the trachea, periosteal nodes, and stricture of the larynx, with extensive ulceration, respectively occurred. Finally, he agreed with Mr. Hutchinson as to the absence of any grounds for believing in any causal relations between syphilis and scrofula.

The debate was then adjourned to the next meeting of the Society, to be held on the 15th inst.

CLINICAL SOCIETY OF LONDON.

AT the meeting of the Society on Friday, Jan. 28th, some very interesting cases were shown, and two or three papers of considerable importance read and discussed. During the earlier part of the meeting, the chair was occupied, in the absence of the President, by Mr. Christopher Heath, and later by Dr. Greenhow. Dr. Bell Taylor's patients were examined with much care by most of the members present, and his communication was received with great interest by the Society. Dr. Broadbent's very valuable case came on too late in the evening to receive the amount of attention which its importance merited.

Dr. BELL TAYLOR, of Nottingham, gave a brief account of a Method of Operating for Cataract, by which the pupil is preserved. He commenced by referring to a method of operation which he had formerly practised, which was a modification of that employed by Graefe, of scooping out the cataract with a spoon after iridectomy. He had found that the spoon was unnecessary, and that if the incision were enlarged, an equally good result might be obtained without its use. Subsequently he tried excision of the periphery of the iris only, leaving the pupil intact, with a good result in thirty cases; but the method was tedious, and required prolonged anæsthesia. The method which he now advocated consisted in a flap operation, the incision passing through the cornео-sclerotic ring, and beneath the attached border of the iris, so as to separate it at its periphery, the pupil being left untouched, and extraction of the lens accomplished in the usual manner. The wound heals readily, the danger of suppuration is slight, and there is no danger of prolapse of the iris. The flap was usually made in the downward direction, the knife employed being either a common cataract knife, a bent iridectomy knife, or von Graefe's, the latter being preferable. If the iris prolapsed it could readily be replaced, or if necessary a portion excised. The pupil being untouched, in the course of a week or two no difference could be detected between the two eyes. Two patients were shown to the Society, the results in whom were certainly satisfactory.—Mr. MACNAMARA dwelt on the importance of not excising the iris when it can be avoided. The best guide consists in the way in which the pupil reacts with atropine; if thorough dilatation is possible, excision of the iris is needless. But in old cases of senile cataract, when such reaction does not occur, iridectomy is requisite. The form of incision in Dr. Taylor's method was no doubt good, and there was the great advantage of a central pupil. He believed that the great end in the extraction of cataract was to remove the lens in its capsule, this giving most chance of recovering perfect sight.—Mr. SPENCER WATSON had had some experience of an operation in some respects similar, but he made the incision in an upward direction towards the corneal margin, and then cut straight out in a plane vertical to the layers of the cornea, the advantage being a larger opening. He agreed with Mr. Macnamara as to the indication for iridectomy afforded by the action of atropine, though differing from him *in toto* as to the removal of the capsule with the lens, on the ground of the danger of rupture of the hyaloid membrane and escape of the vitreous. The results in Dr. Taylor's cases were no doubt excellent.—Mr. BRUDENELL CARTER, whilst commending Dr. Taylor's skilful operation, thought the results could not be judged by any dozen or two of cases, the test of the value of any mode of operation being the larger percentage of success in some thousands of cases. He ventured to think that the removal of a portion of the iris left the eye in a better condition for healing than when it was not removed, and that the risks of subsequent iritis and of prolapse of the iris into the wound were greater when it is left—taking cases all round. He had, moreover, great confidence that there was no optical disadvantage in removing the iris, since in a large number of cases where he had performed iridectomy in one eye, and not in the other, he had never found the vision less in one than the other. Moreover, if the function of the iris is to act as a stop to prevent irregularities of refraction in the lens, it can have no value in this respect when the lens is gone. On these and other grounds he thought that iridectomy was advisable, and would give most good results.

Dr. BELL TAYLOR next read an account of a novel method of treating obstinate cases of Symblepharon. This consisted in dissecting up a narrow longitudinal strip of skin from the eyelid, leaving it attached at one end, and then passing it through an aperture in the tarsal cartilage and uniting it to the conjunctival surface—in fact, transplanting the skin on to the conjunctiva, the skin replacing the lost mucous membrane. A case was shown in which the result was highly satisfactory; the wound had healed well and looked natural, and the operation left no trace except an almost invisible linear scar on the lower eyelid.—Dr. BROADBENT inquired whether the skin assumed the characters of mucous membrane, and Dr. TAYLOR replied that after a time it did.

Mr. CHRISTOPHER HEATH read a case of Gunshot-wound of the Upper Arm dividing the brachial artery and median nerve. The patient, a labourer, nineteen years of age, was dragging his gun through a hedge, when it went off, and the charge passed through the right upper arm. Profuse hæmorrhage occurred, which ceased without ligature. He was seen by Mr. Heath four hours after the injury, when two wounds, one on the inner, the other on the back of the arm, with an intermediate track, were found. There was no pulse below the seat of injury; the arm was cold, and sensation imperfect in the whole hand. Flexion and extension of the wrist and extension of the thumb and index-fingers were perfect, but the power of extension of the other three fingers was nearly lost, and none of the fingers could be closed on the palm. Pronation and supination of the hand were also slightly impaired. Some inflammatory reaction followed, with swelling of the arm, but on the fourth day from the accident pulsation was felt in the radial, ulnar, and radial recurrent arteries. On the sixth day examination showed that sensation was completely lost in the three inner fingers and on the ulnar side of the palm and dorsum, with impairment of sensation of the thumb and index-finger. Subsequently the wounds healed well. At the time of discharge, seven weeks after the accident, sensation was partially regained, but the fore- and middle-fingers were devoid of sensation, and cold, and sensation was impaired on the radial side of the ring-finger and in the thumb. The movements of the wrist were perfect and extension of the fingers had improved, but flexion was very imperfect and the approximation of the fingers was defective. Dr. Poore had examined the muscles of the arm, and found that whilst the strongest faradaic currents did not evoke the slightest movement in the flexor muscles they could be readily brought into action by a continuous interrupted current of moderate intensity. Mr. Heath believed that the brachial artery and the median and external cutaneous nerves had been severed, and that the ulnar and musculo-spiral nerves had been injured. The subsequent partial recovery of sensation showed that the ulnar had become repaired. The patient was exhibited to the Society, and it was found that the condition of the arm had undergone considerable change during the four months since he left the hospital. The muscles of the forearm, the balls of the thumb and little finger, and the interossei muscles were much wasted, and there was considerable inability to flex or extend or separate the fingers; but the sensibility was much increased.—Dr. ALTHAUS narrated a case of injury to the median nerve in the arm, in which, five or six months after the accident, there was no anæsthesia except of the thumb and index-finger, and inability to move the third phalanx of the index-finger.—Dr. GREENHOW observed that there had evidently been great improvement in Mr. Heath's case, and suggested that the application of faradisation might do much for the patient.—Mr. HEATH replied that the patient had refused to submit to treatment, and he had lost sight of him for some time.

Dr. BROADBENT read the notes of a case of Embolism of the Right Posterior Cerebral Artery, with softening of the occipital lobe of the hemisphere, producing temporary blindness, left hemiplegia, uncontrollable movements of the right limbs, and a tendency to roll to the left, with double optic neuritis. The patient was a potman, nineteen years of age, who had had acute rheu-

matism three years previously, and subsequently symptoms of heart disease. After headache for three weeks, he was suddenly seized, ten days before admission, with loss of sight and great pain in the head. The sight gradually returned, but five days before admission other symptoms came on. When admitted to St. Mary's Hospital there were paralysis of motion, together with some rigidity, of the left limbs, the right being in a state of constant and violent action; there was also a great tendency to roll to the left, some inattention, but no loss of consciousness, and he answered questions. Sensation was impaired in the left limbs, and the temperature was 1° F. higher in the left axilla than in the right. For the next three or four days the condition improved slightly, though not greatly altered; there was involuntary defecation and micturition, and the movements of the right limbs were less marked, but rigidity and loss of sensation of the left persisted. Commencing optic neuritis was also observed, which became complete, and slight paralysis of the left external rectus occurred subsequently. The symptoms abated, and the patient recovered to a great extent from the paralysis, dying four months later from ulcerative endocarditis and septicæmia. Dr. Broadbent stated the grounds on which he had diagnosed embolism of the right posterior cerebral artery, and commented on the unusual occurrence of impairment of sensation in cases of embolism, and the sudden blindness. The former he believed to depend rather on locality than cause of lesion, and the latter might, perhaps, be ascribed to derangement of the cerebral circulation by the blocking of so large a vessel; possibly the altered pressure in the other branch of the basilar, and consequent hyperæmia of the left motor centres, might also explain the movements in the right limb. At the post-mortem the calcarine branch of the right posterior cerebral was the only one found blocked, and there was yellow softening in the greater part of the occipital lobe. The other lesions were due to ulcerative endocarditis. Dr. Broadbent drew particular attention to the fact that the symptoms and the extent of the paralysis clearly indicated that a much larger vessel had originally been blocked than was found post mortem, the plug having probably been carried on later into a smaller branch. The moral perversion and the impairment of sensation were probably due to the seat of the lesion being in the region of the posterior instead of the middle cerebral artery.—Dr. HUGHLINGS JACKSON observed that the case was a very valuable one; he had never seen a case of embolism of the posterior cerebral artery. The symptoms were well marked, and the seat of the lesion was found. He had never seen optic neuritis as a complication of cerebral softening due to embolism, although he had seen it when there was no discoverable lesion in the brain. He had shown that vision might be very fair in optic neuritis, especially for distance. He thought the mental condition of the patient must have been impaired, as intellectual deficiency was far commoner with left than with right hemiplegia, unless aphasia were considered such. But intellectual defect often accompanied disease of the left posterior lobe. He believed also that depression of spirits, causeless dread, remorse and anxiety, feelings due to systemic sensations, in fact, were represented in the posterior lobes of the brain, and inquired whether the patient suffered from any such.—Dr. BUZZARD mentioned the case of a gentleman who suffered from the symptom of rolling to the left, so that he had a tendency to fall to the left unless he paid attention. Sleeplessness and nervous disturbance also existed. The patient died from convulsions, and a cyst the size of a walnut was found in the posterior lobe of the right hemisphere. Dr. GREENFIELD inquired whether the anæsthesia had extended to the trunk and face as well as to the limbs. He mentioned a case of embolism of the middle cerebral artery in which hemianæsthesia occurred, and also one in which embolism of the right posterior cerebral artery, with softening of the cerebellum, had produced convulsive movements on the right side resembling those seen in Dr. Broadbent's case. He referred also to facts which bore out Dr. Broadbent's view that a larger vessel was probably at first obstructed. He thought that the rolling movements might probably be attributed rather to temporary affection of the cerebellum.—Dr. BROADBENT, in reply, remarked that in all cases of hemiplegia, where sensation was impaired, he had found the face and trunk affected as well as the limbs. There were no feelings of remorse or dread observed in his case. The tendency to roll to the left was very remarkable in some cases, necessitating the patient's walking on one side of the room.

The meeting then adjourned.

Reviews and Notices of Books.

Guy's Hospital Reports. Third Series. Vol. XX. Edited by H. G. HOWSE, M.S., and FREDERICK TAYLOR, M.D. London: J. and A. Churchill. 1875.

IF any apology were needed for so late a notice of a work which contains the reports of a hospital for the year 1874, it must be found in the large and varied contents of the work itself. Admirable as a monument of the indefatigable industry displayed by the members of the staff of one hospital, this bulky volume of 600 pages can hardly be allowed to appear annually without a slight word of warning and protest. Speaking generally, and without reference to the particular volume indicated above, it must indeed be admitted that a system which renders it almost imperative upon a member of a hospital staff to contribute annually an original thesis of some thirty pages must be faulty. The result, indeed, too often proves it to be so; for when we recall the number of valuable contributions to medical science that have been entombed within the volumes of "Guy's Reports," we cannot at the same time forget the large amount of material that has also gone to swell its pages, serving but little other purpose than that of showing how much can be said upon small subjects. It would be ungracious, indeed, were we to look in any carping spirit upon such meritorious labours; for much as the reader might desire to have his annual potion administered in a more concentrated form, he has never reason to complain of its quantity or of its variety.

The volume opens with a detailed account of Surgical Cases contributed by Mr. Cooper Forster, embracing a wide range of many interesting examples of surgical diseases and injuries. Among them may be indicated a case of spina bifida in a female eighteen years of age, in which tapping was twice performed; one of double popliteal aneurism treated by pressure; one of cancrum oris (fatal); several cases of cancer of the breast and of hernia. Mr. Forster advocates the use of Esmarch's bandage, and cites cases illustrative of its value in operations. Mr. Bryant continues his Reports on Operative Surgery, dealing in the present volume chiefly with cancerous tumours of bone, including some interesting cases of primary cancer. His paper is well illustrated. Among other surgical contributions is one by Mr. Howse, on Tracheotomy in Children, including notes of six cases of successful operation in croup and diphtheria. Mr. Howse gives many valuable hints, and advocates especially a long incision and a large tube. He prefers the old form of tube, as being less liable to injury and more easy of removal for cleansing purposes. His paper is thoroughly practical, and is deserving of careful study. Mr. Davies Colley contributes two papers, one on a Case of Partial Resection of the Head of the Humerus, which resulted in recovery with a movable joint, and one on Two Cases of Varicose Veins treated by Excision.

The medical and pathological papers are far more numerous. There is a long thesis by Dr. Hilton Fagge, entitled Some Points connected with Diseases of the Liver or of the Peritoneum, in which many debated points are fully entered into and clearly and temperately discussed. The theory of jaundice is fully considered, and diabetes is treated with especial reference to its hepatic origin. Ascites and other peritoneal effusions are likewise ably treated. Dr. Moxon writes in his usual attractive style upon Insular Sclerosis of the Brain and Spinal Cord,

including details of eight cases (two of which were recorded in our "Mirror"). This is, we believe, the first detailed account of this affection which has been given in England, and it supplements the admirable description given by Charcot in his published lectures. Two very beautiful lithographs, showing the naked-eye and microscopical characters of the sclerosis, illustrate Dr. Moxon's paper. Dr. Habershon draws attention to some cases illustrative of the Pathology of the Pneumogastric Nerve; and also contributes notes of some cases of Brain Disease. Venous Pulsation of the Liver, as symptomatic of tricuspid regurgitation, forms the subject of a paper by Dr. Frederick Taylor. A series of careful observations on the Blood in various inflammatory and septic diseases, together with experiments as to the "cultivation" of septicæmia, form the basis of a paper by Drs. Goodhart and Moxon. The general conclusion arrived at by the authors is that other conditions than simply a bacterogenous fluid are essential for the development of septicæmia. Dr. Goodhart also discusses the subject of Cancer. Perhaps, however, the most valuable paper included in these reports is that contributed by Dr. Galabin upon the Interpretation of Cardiographic Tracings, in which we have the application of physiological methods to the elucidation of vexed questions in cardiac pathology. Dr. Savage contributes a paper on the Insanity of Pregnancy and Childbirth; Dr. Stevenson continues his notes of Toxicological Cases; and Mr. Bader his series of drawings illustrative of Diseases of the Eye.

Our space has compelled us to give but little else than an enumeration of the contents of this volume. It will be seen that although many honoured names are conspicuous by their absence, their work has been zealously carried on by their successors, with the result that the present volume of these reports maintains the character of those that have preceded it.

We cannot close this notice, however, without drawing attention to one point. The volume is styled one of "Reports," but where are the reports? Beyond the brief statistical summary presented by Dr. Steele, there is no record or analysis of the large number of patients who passed through the wards of Guy's Hospital during the year. We trust that this conservative policy will soon be abandoned; for while the senior sister institutions and many of the younger hospitals are now affording full statistical analyses of their patients in the annual reports of their registrars, from Guy's, whose vast resources and ample material would render such reports of the greatest value, at present no such summaries proceed.

The Principles and Practice of Veterinary Surgery. By WILLIAM WILLIAMS, M.R.C.V.S., F.R.S.E., &c., Principal of the New Veterinary College, Edinburgh. Second Edition. Edinburgh: Maclachlan and Stewart. London: Simpkin, Marshall, and Co.

PROF. WILLIAMS's work on the Principles and Practice of Veterinary Medicine and Surgery, the second edition of the first volume of which is now before us, is the most complete modern exposition of the subject which has been published in this country. Percival's elaborate work on Hippopathology, the production of a scholar and a man of varied practice, is already becoming obsolete, and the student of the veterinary art has long been in want of a well-arranged book of reference which should combine the teachings of modern science with those of the most recent experience. Mr. Williams has supplied this want in a satisfactory manner, and his book will doubtless be generally accepted as a text-book in veterinary schools.

The work is divided into two parts—the first of which deals with the external diseases of the horse and other animals; the second includes a description of the affections to which the internal organs are liable. This method of division is to some extent arbitrary, and now and then it becomes obstructive; but, so far as the student is concerned, it has certain advantages which probably more than compensate for its defects.

The second edition of the first part is an improvement on the first issue, which we noticed in favourable terms in 1872. We observe several additional illustrations, and, in particular, one of a new form of face cradle, for the treatment of fracture of the facial bones.

The chapters on Diseases of the Skin, which we have before referred to as the first attempt at classification of those disorders among the lower animals, have been extended, and now form a very important section of the work. In the description of the disease "foot-rot" among sheep, the author has introduced a critical analysis of the symptoms and morbid appearances which may be relied on as distinguishing this affection from foot-and-mouth disease in the same animal. The two diseases are very often confounded, and much confusion has arisen in judicial proceedings under the Contagious Diseases (Animals) Act, in consequence of the conflicting evidence of veterinary inspectors on this subject. Various authorities who have written on "foot-rot" and "foot-and-mouth disease" are quoted, and illustrations of the peculiar features of each disease are given.

We may fairly congratulate the author on the deserved success of his book; and at the same time we do not hesitate to express our conviction that the amateur in veterinary science, as well as the student and practitioner, may glean valuable information from its pages.

The Indian Alps, and how we crossed them. Being a narrative of two years' residence in the Eastern Himalaya, and two months' tour into the interior. By a Lady Pioneer, illustrated by herself. London: Longmans, Green, and Co. 1876.—This is no ordinary book, and the authoress is no ordinary lady pioneer. We have been extremely pleased with it. Written with a charming freshness and vivacity, and admirably illustrated, the style is so piquant and natural, and the smaller illustrations—pencilings by the way—are so humorous and truthful that to one who knows the Indian Alps this volume will prove most interesting reading, and create a longing in those who do not to behold the grand and varied scenery so vividly described.

The Local Government Directory, Almanack, and Guide for the Year 1876. London: Knight and Co.—This Guide is too well known to need more than a passing notice at our hands. It contains a vast amount of useful information specially required by all local authorities, most of which is very conveniently arranged and tabulated. The book is, in fact, a "requisite" in the offices of all clerks to sanitary authorities.

MOVABLE AND FLOATING KIDNEYS.

To the Editor of THE LANCET.

SIR,—I am directed by the Committee appointed by the Pathological Society of London to inquire into the matter of movable and floating kidneys as verified by examination after death, to ask you to be so good as to make known that the Committee are anxious to receive details of such cases from any who have met with the like in their practice. The Committee would be greatly indebted to those members of the profession who may be able to contribute any information; and notes of the cases will be gratefully received by the undersigned, the Secretary to the Committee, at 47, Green-street, Park-lane, London.

I have the honour to be, Sir,
Your most obedient servant,

Feb. 1, 1876. J. WICKHAM LEGG, M.D.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 5, 1876.

THE decision of the College of Physicians in the matter of courtesy titles to non-graduate Fellows and Members will be everywhere recognised as creditable to the College and beneficial to the profession; and the excellent discussion, of which we give an outline elsewhere, will serve to settle this question for an indefinite time. We have already said that we were puzzled to know how even a Committee of the College could have, in these days of sham titles—and we might have added of real degrees,—recommended the giving of an unreal title to its Fellows and Members, leaving the poor Licentiates out in the cold altogether. We must confess that the little glimpse we now get into the Report of the Committee, containing the grounds upon which the Committee based its suggestions, does not lessen but enhance our surprise. That a Committee of the London College should act upon the loose dictum of a judge to the effect that "if a man is registered he may call himself anything," is not to be understood. It is bad enough for judges to use vague language, and for registered men to use titles proper to other qualifications than those they possess; but that a Committee of the College of Physicians should have recommended the College to give its countenance to such a false use of titles is, we repeat, unintelligible to us. It is gratifying to see, as we anticipated, that the College itself has sounder views of this question and of all the ethical and prudential side issues which are involved in it. The decision of the College is to be approved on several grounds. It maintains the doctrine that a title must correspond to a qualification, and that one licensing body is not to interfere with the work and the privileges of another. It recognises the significance of the title Doctor, as implying the possession of a degree from a University, and so properly leaves to the Universities the whole and great responsibility of bestowing this title on whom they see fit. It rebukes the partiality which would have given a courtesy title to certain associates of the College and have withheld it from others. True, this limited ground would have proved utterly untenable, and we should soon have had Licentiates included in the law of courtesy. But this, as we have already pointed out, would have been an irritating rule to that large body of practitioners who hold their qualification in Medicine from the Apothecaries' Hall. To call a Licentiate of Pall-mall a Doctor, and a Licentiate of Blackfriars an Apothecary, would have been an inequality having no courtesy in it as it certainly has no justice. The decision of the College equally rebukes the voracity of those who, entitled already to call themselves Physician and Surgeon, wish to appropriate to themselves another title, which, as Dr. PAGET argued, can imply nothing else than the possession of a degree in Medicine.

It would be ungracious to leave this subject without recognising the high tone in which several correspondents, holding the qualifications of the Colleges of Physicians, have treated this subject. Not only Licentiates of the London College, but of the Edinburgh one. Though too many of the Licentiates of the latter College have appropriated the title of Doctor with undignified haste after getting their licence and written it large on every available place, it is well known to us, as an Edinburgh Licentiate pointed out last week, that many Licentiates of Edinburgh are content with the title that attaches to their qualification.

The dilemma of the College as regards some of its own Fellows and Members, whom everybody would like to call Doctor, is, of course, not free from awkwardness. But the College has itself to blame for this, in that it tampered at one time with this question of titles. It would have been a poor way out of its dilemma to have assumed powers which it does not possess, and given a fresh lease to fallacious views. There are numbers of non-graduate members of the profession, besides Fellows and Members of the College of Physicians, whose general and medical culture entitle them to the distinction of the Doctorate, and to whom this distinction for the time being seems inaccessible. That this should be so is at once a real grievance in the profession and a real discredit to the Universities, as we have very lately tried to show. It is to be hoped that the discussion raised by the Report of the Committee of the College of Physicians will give publicity to this subject, and that men like Dr. PAGET, who have spoken so forcibly against the sham title of Doctor, will use their influence to put the real one within the reach of practitioners who deserve the distinction. The English Universities have not discharged their function in this respect. They, as far as medicine is concerned, are "in the clouds," to use the expression of a distinguished graduate of Cambridge, in reference especially to the University of London. We must hope that they will soon see their way clear to make medical degrees more accessible to actual medical men who are doing creditably the medical work of the country. Meantime it is matter of congratulation that a proposal to give the title of graduates to those not possessing degrees has been decidedly rejected by the College of Physicians of London, even when the proposal was made by a Committee of its own.

ONE of the first measures presented to Parliament when it meets will be, we presume, a Rivers Pollution Bill. It will be remembered that a Bill bearing the above title was introduced into the Upper House last session by Lord SALISBURY, but was withdrawn in July. It was a puny and vacillating attempt at legislation; and although we were glad to see an endeavour of some kind made, we could not profess to feel much regret at its failure. We trust that the draft of a much more real Bill is in hand; but as it is at least possible that the provisions of the old one may reappear this year without material improvement, it will be well to recapitulate the circumstances which preceded and led to the Bill, and the character of some of its clauses.

The condition of our rivers and streams, so rapidly passing from bad to worse, has long been recognised; and in 1865 Commissioners were appointed to investigate the sub-

ject and suggest remedies. In 1868 these Commissioners were superseded by others, who greatly extended the labours of their predecessors, and who have but lately issued their final report. We have before us as we write the fifteen folios in which the results of these elaborate inquiries are presented. They constitute a work of the greatest national value, pregnant with information gleaned in all parts of the country, with experimental researches often quite novel, and with suggestions almost invariably moderate and sensible. The two final reports contain the mature recommendations of the Commissioners founded on the results of ten years of patient study of the question in all its bearings. Every proposal, every objection brought before them, has been carefully weighed, and is discussed in some one of the reports. Full allowance for the difficulties of sanitary authorities and manufacturers has been made, and a standard of purity laid down which, it is believed on no light grounds, may be imposed with safety. Remedies have been in every case pointed out, and, as far as possible, tried by actual use: the work of the legislator has been simplified as much as possible, and altogether there seemed good reason to hope that a sound measure of reform would, at last, be attained. We by no means pretend that the results of the Commission, obtained with so enormous an expenditure of time and money, are perfect. In so immense a mass of work, dealing with so complex a question, it would be strange if no faults could be found; but, in the main, we cordially agree with the conclusions reached, and approve of the recommendations appended.

With this well-digested mass of information in their hands, the Government produced last session a Bill of seven pages, in which the labours of the Commissioners were ignored almost *in toto*. It was weak and obscure throughout. It substituted vague phrases for definitions, opened the door for endless scientific squabbling, and contrived, by a dexterous "provided" here and there, to permit the worst offenders to enjoy a practical immunity.

The Bill consisted of sixteen clauses, of which four defined the offences under the measure. The first prohibited the addition to a stream, "in such quantities as to interfere with its due flow, *or to pollute its waters*," of "the solid refuse of any manufactory, manufacturing process, quarry, or mine, or any rubbish or cinders, or any other waste, or any *putrid* solid matter." Observe the fine ambiguity introduced by the phrases we have italicised. It would be hard to find a better field for contention than the question,—How much solid matter is sufficient to "pollute the waters" of a stream?

The next clause prohibited the addition of "any solid or liquid sewage matter." This is as it should be; but the important prohibition was immediately neutralised by a proviso which afforded immunity to all who were perpetrating the offence on the 1st of January, 1875, provided they could show that they had used the "best practicable and available means to detain or render harmless" the sewage. What is the "best practicable and available means" for disposing of sewage? We had fancied that there had been some dispute as to its nature.

Clause 4 disposed, very shortly, of the manufactories. They were not to add to any stream "any filthy, noxious, or polluting liquid proceeding from any factory or manufacturing process." How hopelessly vague these phrases are. Under which head are we to place chloride of manganese, chloride of calcium, and the refuse from tanneries, paper and dye works? Do the words mean noxious to man, to fish, or to vegetation?—and what amount of addition is to constitute an offence? However the words may be interpreted, old offenders can well afford to despise them; for by another proviso they have only to show that they have sinned for twelve years, and have "used the best practicable means" &c., to escape all penalties. The drainage from mines was dealt with in Clause 5 in almost identical terms, the only difference being that the word "poisonous" is substituted for "filthy." The usual proviso follows, and again the manufacturer, who would be described in criminal phraseology as a "hardened offender," is allowed a somewhat unfair preference.

The duties of the Local Authorities and of the Local Government Board were defined in Clauses 6 to 9. And here we meet with what appears to have been a grave oversight. Authorities having sewers under their control are directed to "give facilities for enabling manufacturers within their district to carry the filthy, noxious, or polluting liquids proceeding from their factories or manufacturing processes into such sewers" upon terms to be arranged. In many cases, as with tanneries, this is far the best arrangement, as it is better to have the sewage dealt with as a whole than to throw the trouble and expense on individual manufacturers. The town sewage must be disposed of, and it will not be worse but better for the addition of some kinds of manufacturing refuse. But, on the other hand, there are some kinds of manufacturing refuse—such as the acid liquid from metal works—which are not only no improvement, but a great injury to the sewage if applied in irrigation. Would the Local Authority have power to exclude such refuse from the sewers? The power may exist, but it is not noticed here nor in the Public Health Act, which contains so many provisions in regard to the working of sewers.

The tribunal selected for the hearing of complaints under the proposed Bill was the County Court. There is much to be said for such a tribunal; and we are by no means sure that it should not be tried in the first resort. But it would be vain to deny the difficulties which would encumber its working. Such an Act would leave almost everything to the discretion of the judge. The questions involved in the trials would often be intricate, keenly contested, and of vast importance to the manufacturers and the public. No expense would be spared on either side. Evidence of a highly technical and scientific character would often be adduced, and the possible penalty would be great. How could the average County Court Judge hope to do justice in such cases?—how decide when so many doctors disagreed? Fancy his bewilderment with counsel, chemists, engineers, and physicians contradicting one another on all points, and the law helping him only with such doubtful expressions as "noxious liquid" and "best practicable means." We are inclined to think that the unfortunate judge, whatever his skill, would often be tried quite as sorely as the manufacturer.

We are convinced that no real difficulty lies in the way of a substantial reform; and can only hope that wise counsels will prevail, and Lord SALISBURY'S brilliant illustration of "how not to do it" swept clean away.

LOCAL DROPSY—hydrocephalus or ascites—is a condition not unfrequently met with in the fœtus; but general anasarca, on the contrary, is of rare occurrence during intra-uterine life. Two cases of the latter affection were, however, read at a recent meeting of the Obstetrical Society; one by Dr. PROTHEROE SMITH, and the other by Mr. LAWSON TAIT. The latter case is of great interest, not only on account of the rarity of the disease, but also by reason of the lesion found to account for the condition. The anasarca was so great "that it was not possible to bend the limbs without risk of breaking the skin," and "the placenta was large and very œdematous." The general dropsy was attributed to premature closure of the foramen ovale, there being no communication between the auricles. This is a very extraordinary fact; and it is a question to our mind whether or not it was the primary lesion in the case. It is difficult to conceive the closure of an orifice, such as the foramen ovale, through which the current of blood from the inferior cava is constantly passing, unless, indeed, the velocity of that current, when it had reached the right auricle, amounted to nought, and that, overcome by the force of the stream from the superior cava, it flowed into the right ventricle. In such case the primary lesion must have occurred in the placenta, or between the placenta and the heart of the fœtus. If in the placenta,—was the lesion œdema of that organ?

But supposing the primary lesion to have been closure of the foramen ovale,—what effect would this have on the circulation? Were the closure accomplished suddenly, the disturbance in the circulation would be very great, and might result in the rapid death of the fœtus, and that even before dropsy could supervene as the result of obstruction. But we cannot suppose that the lesion met with in this case was produced in such a manner; but, on the contrary, it is certain that it was the result of a gradual process. In this event the effect on the circulation would not be so serious; the organs of circulation would have time to accommodate themselves to the conditions met with by reason of the slowness of its production.

The quantity of blood passing through the foramen ovale during fœtal life is considerable; for nearly all, if not the whole, of the blood from the inferior cava passes through this opening into the left ventricle, and the blood from the superior cava alone passes into the right ventricle, and along the ductus arteriosus into the aorta. After birth, in the course of a few days, the foramen ovale, as well as the arterial duct, become closed to the stream of blood, and the whole of the fluid from the superior and inferior cava flows into the right ventricle, and then through the lungs. This condition is brought about in a few days, and without any sign of obstruction to the circulation. When, however, closure of the foramen ovale takes place before birth, the whole of the blood from the superior and inferior cava must pass into the right ventricle, and along the arterial duct into the aorta. In this case, no doubt, a certain amount of obstruction to the flow would be experienced. This, however, could not affect the general circulation until the right side of the heart had become dilated to such a degree as to render the tricuspid valves inefficient. Even when the latter condition had been attained, it may be doubted to be an efficient cause of dropsy such as that described by Mr. TAIT. In the adult, indeed, such general dropsy is never the result of simple obstruction at the heart and lungs, but is invariably due to a general state of blood dependent on disease of the kidneys; though in the present instance the kidneys were healthy, yet the general dropsy may have been the result of a condition of blood similar to that found in Bright's disease. The functions of the placenta are but imperfectly known. It is certain that it serves for the nutrition as well as the respiration of the fœtus, and it is believed to act as a depurator. That it acts in a certain degree as liver has been proved by BERNARD. There are some reasons also for believing that it performs in part the functions of the skin and kidneys. The secreting functions of the skin are believed to be but imperfectly performed while the fœtus is surrounded by the liquor amnii. The kidneys are developed at the third month of intra-uterine life, and yet the amount of renal secretion in the liquor amnii at birth is very variable, and, during the early months of pregnancy, it may be entirely absent. This has never been explained in a satisfactory manner. It seems to us that it is by no means improbable that the placenta performs the functions of skin and kidney—at least in part. Reverting to Mr. TAIT'S case, we would observe that the part first affected by obstruction at the heart would be the placenta, this being the most distant organ from the centre of circulation. The placenta would first become œdematous, and, as a necessary consequence, would fail in the performance of its functions. Imperfect nutrition, respiration, and depuration of the fœtus would result. The products which in the adult are separated by the skin and kidneys, would remain in the blood, and a condition analogous to Bright's disease would ensue. It seems to us that this is the only way in which such general anasarca could have resulted from imperforate auricular septum. The interest of the case is not limited to fœtal pathology, but extends also to the *physiology of the placenta*.

IT must be patent to everyone, as well as to the Minister of War himself, that the time has gone by for promises, and that immediate action of some kind or other must now be taken if the Army Medical Department is to be maintained at all. We assume, what everybody believes to be the fact, that the entrance examination has been postponed for lack of candidates, and that the Army Medical Service has no longer any attractions for the younger members of the profession. If we were asked what has brought this about, we should say that for some years past things have been tending to this end. For a brief period after 1858 the service was a popular and contented one; but the present discontent had its beginning a few years afterwards, as may be traced by a reference to our columns. It is not so much the result of one as of many causes, operating in various directions and with different degrees of force, but one and all being either really or seemingly detrimental to the interests of medical

officers. Perhaps most of all it is due to the manifestation of a spirit towards them different from that exhibited to other branches of the service. The statements put forward in pamphlets, letters, and other publications all point one way. Medical officers contend that in the matter of leave, whether sick leave or not, appointments, good-service awards, and pensions, for example, their prospects are nothing like so good as those of combatant officers; and that of two brothers entering the army at the same time, the elder having acquired his profession, and the younger with his to acquire, the military and social position and the prospective advantages are altogether in favour of the latter. Moreover, the slowness of promotion, and the almost certain prospect that a young man, however able, industrious, or ambitious, would have to retire at the end of twenty-five years' service —most of it foreign—with the rank and pension of surgeon-major, are matters of just complaint.

The training for the medical profession all the while has been growing longer, more difficult and expensive; and we cannot wonder, consequently, that the Army Medical Service has not been an increasingly popular one. Still, we believe that the great existing discontent is, after all, not to be entirely accounted for by these things, but by the worry and irritation maintained by the frequent cancelling of warrants and issuing of circulars. If the clause of a Royal Warrant could be abrogated by a War Office Circular to-day, it was felt that there was no reason why the title to a pension should not be set aside or curtailed to-morrow. By these and a long series of similar things the service was rendered suspicious, and was soured and exasperated; and then Lord CARDWELL'S Warrant increased the work, and, in effect, diminished the pay of the medical officers at the very time when, of all others, one would think a conciliatory spirit was required for the inauguration of a new system of organisation of which the State, and not the medical officer, was to reap the advantages.

The same rules apply to this as to all matters of business. If good, efficient, and faithful servants are wanted, adequate advantages must, first of all, be offered in order to secure them; and what is promised must be scrupulously fulfilled. The duties of the State to the medical officer, and the duties of the medical officer to the State, might surely be laid down in such clear and unambiguous language as to lay this spirit of distrust which is so constantly growing up. However, the meeting of Parliament is at hand, and Mr. GATHORNE HARDY must then, at any rate, if not before, declare in his place in the House what changes he proposes to make. He has all along promised that the Army Medical Service was receiving his earnest attention in connexion with the army as a whole, and the profession is anxious to know the result of his long deliberations.

DEATHS from fever in Croydon have again been more numerous recently. Eight fatal cases have been registered during the four weeks of January ending 29th; whereas but two were returned during the last three weeks of December. The returns of the Registrar-General do not give the duration of the recent cases; it is possible therefore that some of the eight recent deaths, above referred to, may have been lingering cases belonging to the last epidemic.

Annotations.

"Ne quid nimis."

THE OBSTETRICAL SOCIETY.

AT a meeting of the above Society, held on Wednesday evening last, the adjourned discussion on a note entitled "The Diagnosis of the Nulliparous Uterus," which had been read by Dr. Meadows, took place. The note raised several questions of great interest from medical, medico-ethical, and medico-legal points of view, which we have before reported, but most of the speakers who took part in the debate directed themselves to the post-mortem diagnosis of nulli- and multi-parity. There was a complete unanimity with regard to the extreme difficulty and even the impossibility of forming in many cases any positive opinion on the subject. At the same time many conditions of uterus were pointed out which, when present, favoured the "view" that pregnancy had previously existed, but they were not to be taken as absolute proof of it. Dr. Braxton Hicks stated some interesting facts observed by him on the effects of drying on the tissues, and the effects of soaking in fluid in restoring such tissues to a condition similar to the original one. He further communicated a table of measurements of the curve of the fundus in a number of uteri which were known to have been pregnant and in another series which were virgin. From these observations Dr. Hicks thought that the fundal curve in those uteri which had been pregnant was greater than in those which had not. A committee was appointed to investigate and report upon the whole subject to the Society.

THE BOUNDARY-LINE BETWEEN ANIMAL AND VEGETABLE LIFE.

PROF. HUXLEY delivered an interesting address on Friday evening, Jan. 28th, at the Royal Institution, in which he showed with his accustomed clearness how all the old landmarks that were once held to indicate the boundary-line between the animal and vegetable kingdoms have gradually been effaced, and, what perhaps is still more remarkable, that the advance of science, so far from affording new and more accurate means of diagnosing the members of the two kingdoms from one another, has tended to show that the simpler forms of each are really indistinguishable, and that a new kingdom corresponding to that which has recently been characterised as the "Protista" by Haeckel, and which shall include all the simpler types of organisation, must be admitted. Cuvier considered that the main distinctions between an animal and a plant were that the animal had the power of locomotion, and consequently possessed all the apparatus requisite for that purpose; secondly, that it possessed a digestive cavity and, as a rule, a circulatory apparatus; thirdly, that its chemical composition was characterised by the presence of nitrogen; and, lastly, that whilst animals exhaled carbonic acid gas, vegetables exhaled oxygen. But one by one these several diagnostic marks have been proved to be inaccurate. Recent investigations have clearly shown that all living matter, whether animal or vegetable, contains nitrogen, and that all plants, when not exposed to sunlight, exhale carbonic acid, whilst some, as fungi, exhale it even when exposed to sunlight. The diagnostic mark drawn from the supposed presence of a circulatory apparatus was practically given up by himself, whilst the microscope has revealed multitudes of vegetable organisms which possess active powers of locomotion. Professor Huxley, however, pointed out that if the terms of one of Cuvier's diagnostic marks were changed it might still hold good. It

might not, indeed, be true that animals always had a digestive cavity, and that plants had none; but there was a large basis for the generalisation that a plant was able to make the substance of its body out of dissimilar chemical substances, while an animal was unable to do that. As concrete cases of this, he instanced the growth of a bean in a nitrate of ammonia and saline solution, which contained nothing comparable to bean substance, and the enormously rapid germination of blue mould in a solution of tartrate of ammonia. In these cases the resulting substance of the plants which were built up contained matters of which there was no trace in the solutions; while animals could only break down and destroy the protein compounds furnished to them by other animals or plants.

Prof. Huxley then described the results of his microscopical examination of the active organisms, the generation of which had been the subject of the previous Friday evening's lecture. After referring to the bacteria, he entered into some details in regard to the structure of a vegetable organism he has christened "Heteromita Leus," an actively moving organism, about the size of a human blood-corpuscle, oval in shape, containing granules, and terminating in a cilium at one end. Little is known of the life history of this creature, but it is probable that it undergoes fission at such a rate as to produce a thousand couple in an hour, one million in two hours, and one thousand million in five hours. What would Malthus have said to these numbers?

THE DENTAL PROFESSION.

IT would appear from a letter published in another column, that there has been a groundless assumption on the part of some members of the dental profession that the society, the contemplated formation of which we mentioned last week, was opposed to the special degree of L.D.S. This is not so. The inferior degrees to which allusion was made were those which are so often palmed upon a credulous public by advertising men. Dental surgery has made great advances of late years, and the movement now initiated should be the subject of congratulation, having such good objects in view as a closer association of the more highly qualified members of the profession, the formulation of an improved code of etiquette, the abolition of that advertising system which does so much to degrade the calling and generally the elevation of the status and *morals* of dentists. A question of considerable importance to the Royal College of Surgeons is also brought under consideration, and one which should have before now engaged its attention. It has long been felt that the conditions of the degree of L.D.S. given by the College are not sufficiently stringent to prevent the admission of men who do not or cannot adequately appreciate the bearing of their connexion with the College, or of the responsibility which that connexion implies. The degree is now given without any guarantee that the recipient has undergone an educational training, and practically with the security of but a very little expenditure of time and labour. While some go so far as to insist that the L.D.S. should only be given as a pendant to the higher qualification of M.R.C.S., it will be generally conceded that at least a preliminary examination in general education should be imposed on all candidates for the dental diploma of the College in the same way as the test is exacted from medical students. The creation of the diploma has undoubtedly worked great good, and has enabled the medical profession and public to discriminate between well-trained and honourable practitioners and the swarm of dentists whose advertisements fill the pages of our newspapers; but the College should now go a step further, and make the licence thorough. In its own interest it should set about propounding a scheme for the better examination of dentists, which shall provide for the removal of the evil we have pointed out. It seems monstrously behind the requirements of the age that the Royal College of Surgeons of England should license men without having first ascertained that they had been educated.

A CLERICAL CRUSADE AGAINST DRUNKENNESS.

IT is gratifying to see the clergymen of the Church of England memorialising the Bishops to do all they can in Parliament to abate the vice that so disgraces and degrades this country. If the bishops could initiate or support any legislation that would sensibly touch this evil, they would do much to revive men's faith in the power of Christianity and of the Church of England. It is lamentable to see that there is a notion abroad that the present Government is paralysed as regards this question from a supposed obligation to the publicans. Let us hope that this alliance has no more vitality in it than the memorial of the clergy shows to have been in the alleged alliance between them and the publicans. At any rate, it looks as if the Government would have to choose between pleasing the publicans and pleasing the clergy. As we are sure that in this matter the clergy represent the public, we shall hope to see the Government do something worthy of its power in regard to an evil which cannot be exaggerated. The present supply of public-houses presupposes drunkenness. It could not be maintained but for the consumption of coarse quantities of beer and spirit, which everybody regards as a mistake, physiologically and morally. The licensing system that permitted and created such a supply of public-houses stands self-condemned. And what makes the matter one of urgency is, that every year the demoralising effect of public-houses is extending, so that political issues are more and more vitiated by it. Let us hope that both political parties will determine to treat this question as one of patriotism and not of politics. Can the medical profession make no contribution to this crusade against drunkenness? The College of Physicians should make its voice heard in this matter, as it did with such good effect on the congenial question of the homes of the working classes. This is a State question on which Medicine should speak out. The President of the College of Physicians could not crown his long and honourable tenure of office with a better service, than by moving the College to testify to the Home Secretary the enormous physical misery and mischief, seen by medical men, to result from the coarse drinking contemplated and abetted by the present public-house system.

"UNAUTHORISED VISITORS."

THERE is nothing more annoying than the constant ring of the door-bell; and it is still more vexatious when we find that in many cases such rings are utterly purposeless. Yet many persons find this nuisance is increasing. Formerly hawkers, old clothes' men, costermongers, and flower dealers were content to announce their presence in the street by stentorian shouts; now they invade the front door-step and area-gate. It is intensely unpleasant, in cold weather especially, to have the front door thrown open whilst the servant is vainly persuading the rough that neither brooms nor brushes, clothes' horses nor baskets, crockery nor iron ware, are wanted; nor can one see an active barter going on from the area-steps of old bottles, rags, and dripping, without feeling that full bottles, new clothes, and joints of meat may likewise be disposed of. Another class also that give infinite trouble and no profit are the commission agents. These men, not content with the door-step, boldly force their way to our studies and waiting-rooms. Agents for

publishing firms, with illustrated bibles or comprehensive cyclopædias; agents from wine merchants, with wonderful sherries, "free from acidity," often accompanied with cigars of "real Havannah"; men with furniture-polish, patent gas burners, and photographs pirated from famous prints. These unauthorised visitors, independent of the annoyance they cause ourselves, entail much additional labour on the servants, who have to leave their work, and are kept constantly running backwards and forwards between the kitchen and the hall. It is our own fault we are pestered with commission agents, for unfortunately they have received hitherto too much encouragement, and we believe if they are henceforth treated as they deserve—that is, promptly shown the door the moment they disclose their purpose—our houses will not long be haunted by them. But the hawker, bottle merchant, and other sturdy ruffians are not so easily discouraged. The other day we saw a gang consisting of eight—men, boys, and women—selling brushes and other articles on both sides of Harley-street, ringing the house-bells, and making a hideous discord with their cries; nor did the different members of the gang hesitate, in spite of refusal, to ring the same house-bell over again. We have no wish to check honest industry, but we must protest against being annoyed by vagabonds of this class; and the police ought to be empowered to take in custody any person ringing a door-bell without a sufficient plea for doing so.

PIGMENTARY DEPOSITS IN THE BRAIN FROM MALARIAL POISONING.

DR. W. A. HAMMOND has recently called attention to this subject in connexion with some interesting and novel observations and experiments of his own. It is universally recognised that malaria is capable of making a profound impression on the nervous systems of those upon whom its toxic influence is exerted, and it has also been observed that there is a disposition engendered in such subjects to the production and development of pigmentary deposits. There is very frequently a peculiar bronzing accompanying the anæmia of paludal cachexia, not only observable on the skin of the exposed and uncovered parts, but of the covered parts of the body; and, what is more, this pigmented staining is frequently present in the internal organs and tissues. According to Virchow, Dr. Stiebel was the first to notice the occurrence of pigment-cells in the blood, and Meckel, Virchow, and others, have discovered numerous pigment-cells in that fluid in connexion with malarial poisoning and hypertrophy of the spleen; and previous to their observations the fact of pigment existing abnormally in various organs of the body had been noticed. In 1831, Bright described and figured the brain of a man who had died from cerebral paralysis, which appeared to have resulted from an attack of fever. The cortical substance was of a dark colour, like black-lead. The spleen, liver, and the tissues of other organs have also been found similarly affected. Dr. Hammond had a patient in 1874, suffering from deafness, pains in the head, and epileptic convulsions, in whom an ophthalmoscopic examination showed the existence of double optic neuritis, with pigmentary deposits. There was a history of malarious fever in the case, and recovery from these symptoms, including the deafness, followed the use of arsenic. In this and some other cases Dr. Hammond punctured the spleen with a hypodermic syringe, and submitted the blood drawn off to microscopical examination with the result of finding in it numerous masses of free pigment, irregular in form, and varying in size from the $\frac{1}{1000}$ to the $\frac{1}{250}$ of an inch.

As a result of these observations and of some experiments on the lower animals, in which he injected finely-powdered indigo into the circulation, Dr. Hammond, after a consideration of the whole subject, is led to conclude: that, as a consequence of malarial poisoning, the pigment of the blood undergoes a change in appearance and form, and that the alteration is effected in the spleen, leading to hypertrophy of this organ; that this pigment may enter the general circulation from the spleen, either in a free condition or in pigment-holding cells, and that it may be deposited in the cerebral bloodvessels or pass through their coats; that these deposits may give rise to various symptoms indicating derangement of the nervous system; that arsenic appears to have the power, in a way at present unknown, of so altering the character of the pigmentary deposits as to facilitate their removal, and to cause the disappearance of the symptoms to which they give rise; and, lastly, that we may have, during the life of the individual, ocular demonstration of these facts by the presence of pigment in the fundus of the eye, as revealed by the ophthalmoscope.

THE PRINCE'S TOUR IN INDIA.

WE have received a lengthy communication, up to the 5th ult., from the Prince of Wales's camp at Benares, where the climate is spoken of by our correspondent as splendid, and the camp as a magnificent one. The Prince was on the eve of starting for Lucknow. His Royal Highness was much gratified with his visit to Calcutta and all he saw there. He inspected the Medical College, the Female Orphan Asylum, and some other hospitals, and manifested a great deal of interest in these institutions and their inmates. His Royal Highness is bronzed by the sun, but is looking remarkably well, and stands the heat and fatigue quite as well as, if not better than, most of his suite. Whilst at Calcutta His Royal Highness had a slight affection of the throat, and subsequently sustained some temporary inconvenience from striking and contusing his right knee against the corner of a table; but, with these trifling exceptions, his health has been excellent throughout. The heat of the whole of Southern India was great, the thermometer seldom being under 82° F., and the sun hot and the air damp; but at Benares it was cool, the thermometer standing at about 56° in the morning, and going down to 52° and 54° at night. It is abundantly evident now that cholera had been raging to a far greater extent than had been imagined all over Southern India, as many as 52,000 deaths from that dire disease having taken place during the year in the Madras Presidency. Such was the desire manifested to get the Prince to carry out the original programme, and such inducements were held out about plentiful sport and large game, that it must have required the exercise of no little prudence and decision of character on the part of Dr. Fayrer to withstand these temptations, and urge, so strenuously and strongly as he is known to have done, his objections to the fulfilment of this portion of the programme. Nor was cholera the only risk to which the Prince might have been exposed in going to certain places; there was also the liability to contracting a malarious fever. Notwithstanding the assurances that were proffered as to the immunity from all risk in respect of the latter, Dr. Fayrer evidently preferred to be guided solely by his own judgment and the results of his own long and intimate experience of the country in this matter. We do not hesitate to aver that the Prince and this country are to be congratulated that it was so, and the medical profession at home will ratify the soundness of the judgment displayed. It is easy enough for irresponsible persons to think only of the herds of bisons, elephants, and ibex waiting to be shot, and to regard the advice of those whose duty it was to dissuade the Prince as being influenced by a caution carried to timidity; but events have since proved

the sagacity of the advice tendered. Lord Hastings went a few days later with his friends to reap the advantage of shooting on the West Coast, of which the Prince had been deprived, but on landing at Calcutta H.R. Highness received the sad intelligence of Lord Hastings' death from jungle fever. We have, when giving the description of the Prince's tour by our correspondent, striven to put ourselves in the position of H.R.H.'s medical adviser, and we can readily realise that the position is necessarily a most anxious and responsible one, and it is the duty of everyone to see that it is not made more so by attempts on their part, however well intentioned, to influence his judgment. Our correspondent mentions, by the way, that the *Serapis* lost a man from cholera after reaching Calcutta, and one or two others were sent to hospital. This need excite no alarm, however, for cases of sporadic cholera are of common occurrence on board ships going up the Hooghly to Calcutta. Only one of the Prince's party has remained at Calcutta, Mr. A. Guy, convalescent from congested liver, probably contracted from exposure to the heat of Southern India.

A REMARKABLE CASE OF ANEURISM.

ON the 25th inst. Mr. Oliver Pemberton, of Birmingham, tied the external iliac artery in a case presenting features of unusual occurrence and interest. The patient, a country gentleman of forty-seven, had led a life of great activity, especially in horse exercise; had been syphilitic, but was otherwise vigorous and healthy. Six months previously an aneurism formed in the left popliteal region; shortly after a second, at the apex of Scarpa's space; and when seen (Jan. 11th) by Mr. Pemberton there was a third under Poupart's ligament, all being in the same limb. The lower tumours were as large as the closed hand, and the upper the size of a goose-egg. The artery was secured about an inch from the bifurcation by an antiseptic ligature—which Professor Lister specially prepared by a new method which he has just devised, and which, as soon as he has perfected its details, he intends to bring before the notice of the profession. The immediate result of the operation was that all pulsation ceased in the three aneurisms, and has never returned (nine days having now elapsed). The patient is well, the pulse having never exceeded 84, and the wound without disturbance under antiseptic dressings.

It need hardly be said that the all-important question here was, to what extent would the collateral circulation be established? How much of the limb could be preserved from gangrene? Let the position of affairs for a moment be reviewed. The main artery, extending from the seat of ligature below the bifurcation of the common iliac to a little above the origin of the anterior and posterior tibials, arrested, *at four distinct points*, by absolute barriers to circulation—*by one ligature* and three solid aneurisms! Despite these difficulties the existing conditions seem to assure the preservation of the limb to about the middle third of the leg, a marvellous instance of what collateral circulation can do when tried to its uttermost.

THE CAUSE OF THE COMMENCEMENT OF PARTURITION.

IN a paper on the above subject Dr. C. M. Crombie has discussed some of the forces which play a part in the process of labour. He maintains that labour is not the result of a new impulse suddenly communicated to the uterus at term, but the completion of action which began when conception took place. He holds that the uterus in the human, as well as in other animals, is a part of the oviduct, but greatly modified; that the primary function of the oviduct is the discharge of the egg, and retention and development of it only secondary; and further, that there is nothing to distinguish the uterus from the rest of the oviduct, except the protracted continuance of its function. The evidence of activity of the uterus during gestation is derived from several sources. The great muscular development of the organ points to it, for it is contrary to physiological and pathological laws that a muscular organ should grow while completely at rest. The phenomena of abortion and premature labour, and the possibility of inducing premature labour; the sensations referred to the quickening of the child, which are believed to be due mainly to the movements of the uterus; the gradual approach of the actual process of labour—all lead to the inference that the uterus is active during the whole period of gestation. Moreover, the contractions of the organ have been actually observed in the course of pregnancy, occurring regularly and alternating with expansion. Though the uterus struggles from the first to expel its contents, it fails to do so until the reduction or withdrawal of the conditions that during gestation prevent the activity of the organ taking effect. These conditions are the attachment of the ovum to the uterus, the condition of the cervix uteri, and the relation of the liquor amnii to the fœtus. The latter fluid, though increased in quantity, yet relatively to the fœtus is diminished towards the end of pregnancy, and, after labour has really set in, becomes discharged; then the uterus acts at an advantage, and expels the fœtus. Dr. Crombie has endeavoured to explain the process of labour on ordinary physiological principles, and his paper is deserving of a careful perusal.

MILITIA SURGEONS.

THE promise made by the Secretary of State for War to the Militia surgeons in 1874—reiterated in 1875, and endorsed by Mr. Hardy on several occasions in the House of Commons during last session—still remains unfulfilled. No new medical regulations have been issued, but the authorities are acting upon par. 15, Cl. 9, Mil. Reg., 28th May, 1872, and giving notice to some surgeons who have attained the age of sixty years to send in their resignations, and that, too, without any information as to when and how compensation may be claimed for the loss of what in some cases is an entire living. That Militia surgeons have distinct claims has been recognised by both Lord Cardwell and Mr. Hardy in their statements that "individual cases will be considered on their merits." We understand that steps will be taken immediately on the assembling of Parliament to put an end to the present state of uncertainty as to the future of the medical officers of the Militia. There are no less than fifteen surgeoncies and thirty-two assistant-surgeoncies at present vacant in the force.

SANITARY NOTES AND REPORTS.

MR. A. W. BLYTH, medical officer of health for the North Devon Unions District, in his last report, again comments upon additional evidence adduced to show the infectious nature of acute pneumonia. The epidemics of typhoid in North Devon during the past year were of a very mild character, and coincide with the time when the springs in that part of the country were very high, so that wherever ineffectual drains and a porous soil existed leakages must have been frequent. Permanent sanitary works have been constructed at Chulmleigh, Witheridge, Winkley, and Clovelly, and the writer remarks that the last-named place has regained all its native charms, "unsullied by the unromantic refuse of its inhabitants."

A very diffuse but painstaking report on the sanitary condition of the city of Boston, U.S., has lately reached us, from which it appears that the mean general death-rate is

24·5 per 1000 living, and that this, with very little variation, has been the rate for the last twenty years. The foreign element of course considerably influences these results, for of the aggregate population of Boston nearly two-thirds (58·4 per cent.) are composed of aliens and their offspring, and of this latter proportion more than two-thirds consist of Irish, for Boston contains the largest proportion of Irish inhabitants of all the great cities of the United States. The exceptionally high death-rate of this city in 1872 and 1873 caused this special investigation to be made.

RAILWAY ACCIDENTS.

THE suggestion has been lately made by Dr. W. H. Barlow, that the suffering and injury in cases of railway accidents are intensified by the absence of appliances for relief, and he suggests that every train should carry a medicine chest containing a supply of restoratives, with splints and bandages, a tourniquet, and a small case of surgical instruments. These appliances are apparently to be used by any surgeon who may be at hand, and in his absence would, we fear, be useless. The *Pall Mall Gazette* suggests that the provision, to be complete and systematic, should be carried out in a thorough manner, and that a doctor, solicitor, and undertaker, should travel with every train. We fear a logical public would demand the further concession, which was suggested some time ago, and could not consistently be refused, that a chaplain should be provided to read the burial service over the passengers before the departure of each train.

It is to be feared that practical difficulties would render even the simplest of these methods unavailing. The doctor might possibly be killed, and the instruments not to be found when they were needed, while a case of "restoratives" would tend rather to provoke a collision than remedy its effects. The Abbot's Ripton accident illustrates very clearly the value of skilled provincial surgery. The means which a provincial hospital affords, not only for the actual needs of the wounded, but for their skilful treatment, is of the highest value, and that value has seldom been better shown than in the instance which has just occurred.

SIR JOSEPH FAYRER, K.S.I.

THE profession generally, and especially that portion of it in the Indian Medical Service, will, we are sure, join with us in congratulating Dr. Fayrer on his elevation from a Companion of the Star of India to the Knighthood of the same order. The honour was bestowed, no doubt, in recognition of Her Majesty's sense of the way in which he has discharged the duties of the very responsible post that he now occupies as Physician to H.R.H. the Prince of Wales, and of his professional services to H.R.H. the Duke of Edinburgh. At the same time, the distinguished part he has played as an officer of the Indian Medical Service, and his work in the cause of medical and surgical science, have not been overlooked.

HEALTH OF BRENTFORD.

THE report of Mr. Edward Davis, the medical officer of health for Brentford, shows a satisfactory result for 1875. The death-rate has been only 15·9 per 1000, and only two deaths from zymotic disease are recorded. We confess we are inclined to ascribe this low mortality in some measure to accident, and to a naturally healthy site, for we gather from the report that no substantial sanitary reform has been effected; and that, in fact, it is nearly in the same dirty state as it was when our Commissioners visited it. The medical officer concludes his report with some sensible and moderate advice, and we hope that at least it will be followed, if more stringent measures are not attempted.

SOME surprise was expressed by a Fellow of the College of Physicians at its last meeting at words occurring in an article in THE LANCET of January 8th in reference to the question of titles—"We confess that when we first saw the report of the Committee of the College," &c. &c. These words seemed to show that the writer of the article in THE LANCET had seen the Report of the Committee. This was not the case, and we must confess that the words were used inadvertently and inaccurately. The writer had not seen the Report in question, but only the report of the gist of the suggestions of the Committee which appeared in THE LANCET of December 25th. It was this report alone to which the words of our article referred. We gladly make this explanation, in consideration alike to the Fellow to whom we were indebted for very proper information, as to the general drift of the Report of the Committee, and to the Fellow who was not unnaturally concerned at words which seemed to imply that a report then private and confidential had been shown to us.

THE *Pall Mall Gazette* announces the death at Florence of Sir David Dumbreck, M.D., K.C.B., at the age of seventy-five years. Sir David, who died on the 24th, was honorary physician to Her Majesty, became a L.C.S. in 1825, and M.D. of Edinburgh in 1830, was appointed Deputy Inspector-General of Military Hospitals in 1854 and Inspector-General in 1859, but retired on half-pay in 1860. Prior to the breaking out of hostilities he was despatched on special service, early in 1854, to the expected seat of war, and traversed on his mission Servia, Bulgaria, and part of Roumelia, crossing the Balkan on his route. He was subsequently, for a short time, principal medical officer with the army, and served with it in the field as senior deputy inspector-general, and was attached to head-quarters at the affair of the Bulganac, the battles of Alma and Inkermann, capture of Balaklava, and siege of Sebastopol. He received the Crimean war medal with four clasps, and the Turkish medal, was a knight of the fourth class of the Order of the Mejidie, and was created a K.C.B. in 1871.

OUR readers will probably thank us for calling their attention to the current number of the *Contemporary Review*, which contains some interesting articles, and notably the very able opening one, by the Rev. James Martineau, on "Modern Materialism: its Attitude towards Theology," in vindication of his own views and in reply to those of Prof. Tyndall and his criticisms. Sir Walter Crofton, in a contribution on a question which is proving one of increasing difficulty—namely, "Recruiting for the Army,"—has thrown out some practical suggestions for consideration which fall in very well with some of the views that we have ourselves put forward. By extending our recruiting area in the direction of our certified schools, elementary day schools, voluntary refuges for boys, and workhouse union schools, a large amount of youthful material would be at command from which youths might be enlisted for long periods of service, who could be specially prepared in training establishments for the army.

THE last Sunday in January was Hospital Sunday in Sheffield. The institution of Hospital Sunday in the town dates from 1868. The steady, but not absolutely regular progress of the movement must be highly gratifying to the promoters, of whom one of the chiefs, we believe, is a member of our own profession. In 1868 the sum raised was £1169. In the next year it fell to £1009. Let us trace the growth of the fund for the last six years. In 1871, it was in round numbers, £1097; in 1872, £1344; in 1873, £1446; in 1874, £1747; in 1875, £1850; and in 1876, £2043. This is a most encouraging result.

DR. ORME DUDFIELD, medical officer of health for the Kensington district, in a report of the health of the parish for the three weeks ending January 1st last, has to record a high rate of mortality from the zymotic class of diseases, chiefly among well-to-do families. One fatal case of diphtheria occurred in a house in which the arrangements, structural and otherwise, were grossly defective, although situated in a new and fashionable locality. There were two waterclosets in the centre of the house, and ventilating into it. A large water-cistern in the roof, which had direct communication with the soil-pipe, was uncovered, and in a most filthy condition; while the cistern in the basement, chiefly used for domestic purposes, was found to contain the wings of hundreds of cockroaches, whose bodies had been slowly macerated, and consumed by the household. Dr. Dudfield also gives an illustration of one of many unsuspected ways in which the insidious poison of scarlet fever may be propagated.

MEDICAL officers of health, analysts, and sanitary inspectors should make themselves clearly acquainted with the terms of the new Adulteration Act before instituting proceedings against fraudulent vendors of food and drink. A batch of summonses were taken out lately at Guildhall by the inspectors of the City against milk-sellers, who it was alleged depreciated the fluid largely with water. In the very initial stage of the prosecution all the cases broke down as the advocate of the defendants elicited that the inspector had not complied with section 14, which enacts that the suspected article must be divided into three parts and sealed up in the presence of the defendant who is to retain one portion. The inspector, it appeared, had been working under the old Act, which did not provide for giving the defendant a sample. It is a pity that well-directed efforts to carry out the Act should be defeated on grounds of technicality, and it is to be hoped that a repetition of the miscarriage at Guildhall will not be permitted to recur.

THE last weekly return of the Registrar-General reported the first fatal case of small-pox that has occurred within "greater" London since the middle of July last. Greater London is co-extensive with the City and Metropolitan Police Districts, and has an area of nearly 700 square miles; its population is estimated to the middle of this year at more than four and a quarter millions of persons. Complete immunity from fatal small-pox in so large an urban population, for more than six months, is probably unprecedented. The fatal case of small-pox last week occurred at Hanwell, and was of an adult female, who was certified by the medical attendant to bear no marks of vaccination.

HENRY WARDLE, a peripatetic medical botanist at Hanley, was summoned lately, at the instance of the chief constable, on the charge of having, on the 19th January, wilfully and falsely taken the name and title of "Doctor," thereby implying that he was then registered under the Medical Act of 1858, and recognised by law as a physician; also of having delivered to an inhabitant and passenger a bill of an offensive nature, and referring to a disease of a loathsome and secret kind. He was fined 40s. The action of the chief constable in this matter was very praiseworthy, and should be imitated in other places.

AT a meeting of the Governors of the Peterborough Infirmary, held on Friday, January 28th, the new "Fitzwilliam Wards" were opened and presented by the Mayor to the subscribers. These wards were built as a memorial to the late Hon. G. W. Fitzwilliam, of Milton Park. Dr. Leonard Cane, M.D. and B.S. London, M.R.C.S. &c., was appointed consulting surgeon to the institution.

AN unusual case of displacement of the liver was recently treated in the Bellevue Hospital, New York. The patient was a man of forty-two, who had no history of specific disease; a temperate liver, and had not been subject to any of the causes which favour displacement of the organ. On admission he was troubled with piles, with frequent desire to defecate. Soon after he suffered from ascites and jaundice, which, after a time, disappeared. The abdomen, in addition to the fluid, contained a solid body, sharp in outline at its lowest border, which could be moved about easily. Percussion and other modes of examination left no room to doubt that it was the liver "dislocated" about three inches. At one time its free border had nearly reached the umbilicus. The mass could easily be restored to the normal position of the liver, but returned as soon as the mechanical support was removed.

THE mortality in London last week was at the rate of 24 per thousand annually. The deaths, amounting to 1637, included 49 from measles, 79 from scarlet fever, 7 from diphtheria, 88 from whooping-cough, 23 from different forms of fever, 15 from diarrhœa, and 414 referred to diseases of the respiratory organs—the latter number including 270 from bronchitis and 91 from pneumonia. Five cases of murder or manslaughter, and five of suicide, were registered in the period. The district Fever and Small-pox Hospital at Homerton contained 251 patients on the 29th ult., of whom 153 were under treatment for scarlet fever.

THE East London Medical Defence Association last week recovered, under the Apothecaries Act, in the Court of Exchequer, a fourth penalty of £20 and costs, for illegal practice in the East-end of London. The case presented unusual features of interest, inasmuch as the defendant, Nottingham, a chemist, had entered into a deed of partnership with Mr. W. C. Waylen, M.R.C.S. and L.S.A.

THE next examination of candidates for admission into the Medical Service of the Royal Navy will take place at the University of London, Burlington House, on Monday, the 14th February, as already advertised.

THE Royal Commissioners on Vivisection have signed their report, which will forthwith be despatched to Her Majesty.

ARMY MEDICAL REPORTS.*

[FIRST NOTICE.]

BLUE-BOOKS are proverbially dull reading, and an intimate acquaintance with official documents is certainly not conducive to vivacity of character or literary style. Some men there are who take a delight in encountering and surmounting a *chevaux-de-frise* of figures in the shape of statistics, which are to others so many arithmetical puzzles fit only for a competitive examination. The latter either congratulate themselves that they were born in the pre-competitive age, or that they have already undergone the competitive process. Books accumulate and men decay, and they decay so fast that the majority of them want to know, in the shortest practicable way, what the conclusions are that have been arrived at, in order to see whether it be worth going over the ground again themselves to determine how they were reached. It is obviously impossible to obtain the most elementary notions of what the conditions are adversely affecting the health of any body of men at any given station, without first of all ascertaining the nature and relative prevalence of the disease-manifestations; and statistical data of some kind, besides being necessary for the information of

* Army Medical Department Report for 1873, Vol. XV. Harrison and Sons, Her Majesty's Printers.

Parliament, are the essential bases of Sanitary action. We have long thought, and more than once urged, however, that this section of these reports might be curtailed, and that the arithmetical results might be advantageously summarised, or cast into the shape of statistical deductions, and published alone without the numerous tables, abstracts, and details that now accompany them.

Be all this as it may, however, we promise our readers that we are not about to plunge into a maze of figures.

To begin with one of the most common and fatal of all the acute forms of disease. Cases of enteric fever were widely distributed through the different stations of the United Kingdom during the year 1873, but their greatest rate of prevalence was during the Autumn Manœuvres, at the Camp of Exercise at Dartmoor more especially. The outbreak extended to seven regiments, but its chief incidence was in the 19th Hussars, which furnished 13 of the 20 cases. Certain regiments, placed under the same conditions of exposure, food, duty, encampment, marching by the same route as the affected regiments, remained free from the disease. The history given of the outbreak in the 19th Hussars points to the conclusion, that the regiment encamped in a district where enteric fever was rife, and that the use either of excrement-polluted water, or of infected privies or latrines, gave rise to the first cases, and these, again, to the succeeding ones.

Passing to the section on the health of the troops serving in the West Indies, we find our attention markedly directed to the mortality at Newcastle, Jamaica, in 1873, as compared with that at other stations of the command. Newcastle, a maritime station, is reckoned the sanitarium of Jamaica, and, practically speaking, it is there that the white troops are stationed; but it is shown that if a period of fourteen years be taken, the ratio of deaths to strength is in Jamaica 18·24, as compared with 11·75 per 1000 in the Windward and Leeward Islands. When we come to inquire the nature of the diseases to which this increased mortality at Newcastle may have been attributed, we learn that it is fever of some kind, but exactly of what kind, or whether of two dissimilar kinds—enteric fever and yellow fever at different times, as seems highly probable—the evidence in the medical reports is most inconclusive. Still, in any case, the evidence furnished in these reports as to the existence of a most insanitary condition of things at this so-called Sanitarium is unmistakeable. By the way, a passage quoted, between inverted commas, from one of the medical reports, at page 77 of this volume, is, we trust, to be regarded as unique in its way. Some curious inaccuracies occurred, by the way, in an article which quite recently appeared on this volume. Continued fever may be misleading or indefinite, but it cannot be an "obsolete" term, seeing that it exists in the latest nomenclature of the Royal College of Physicians, and its employment in the public medical services has no reference whatever to the old use of the words before the specific differences between typhus and typhoid fevers were established. It probably embraces most, if not all, of those cases in the army previously included under "Ebriositas," and a number of trivial cases, various in kind, degree and causation, together with fevers in their initial stage whilst still not differentiated in diagnosis. But that the 534 *admissions*—not cases, as stated—of continued fever could have been "neither more nor less than mild cases of typhoid" surpasses belief, seeing that only 4 of the whole number died. They must indeed have been mild with such a mortality! And as regards paroxysmal fevers there were 1013 admissions, and not cases as again stated, of ague, a very important distinction, for by cases it might be inferred that so many different individuals instead of attacks, were represented. There is not only no reason why the same individual should not have been admitted half a dozen times for such a disease as ague, but such was in all probability the fact. The influence of Tilbury Fort and Sheerness in causing the disease is, moreover, correctly pointed out in the report itself, as may be seen by turning to its 21st page in regard to the latter place (Sheerness). The writer of the article in question no doubt devoted but little care and time to his examination of the volume, otherwise he would have avoided some pitfalls in the shape of a precipitate judgment based upon erroneous assumptions; and a reference to the last edition of Murchison will show that the existence of a simple continued fever is recognised and its causes enumerated—causes of the commonest occurrence in the army. Still, the term is a loose and inexact, although convenient, one, and febricula, ebriositas, and dyspepsia would one and all have to be used in addition to ensure strict accuracy. The year 1873 was unusually unhealthy at the Mauritius, due in great part to malaria and to the introduction and rapid spread of two epidemics—dengue fever in the first, and measles in the last month of the year. Now that proper arrangements are made for the accommodation of the troops serving in China, that the barracks are not overcrowded and the drainage is good, this station may be regarded as a very healthy one. The increased number of buildings, the better drainage, the more strict attention paid to cleanliness, and the non-disturbance of the soil by cuttings have exercised a very marked influence in the reduction of malarial fevers. The reports from the Mediterranean stations—from Malta more especially—dwell upon causes of disease nearly identical with those which we have encountered before in these reports.

Turning to the Appendix, we have Dr. Parkes's Report on Hygiene for the year 1874, and part of 1875, in which he deals briefly with the sanitary legislation and literature of the period, and selects for notice and analysis all the publications and subjects which seem to have a bearing upon the work of army medical affairs. Dr. Parkes then passes in review the new edition of Professor Kubel's "Treatise on Water Analysis," by Dr. Tiemann, the assistant in the University Laboratory at Berlin. Under the heading of "Air," he gives a very brief *précis* of Dr. de Chaumont's communication to the Royal Society, on the Theory of Ventilation, passing to the discussion of food, soil, the thermal influence of forests, sewerage, disinfection, and exercise, and then to the subject of the spread of specific diseases—such as enteric fever and cholera. In the analysis of works by Professor Hirsch, of Berlin, on the outbreak and spread of cholera in Posen and Prussia, in May to September, 1873, and by Dr. M. Frank, whom he styles the Medical Officer of Health for Munich, on the epidemic of 1873-74, Dr. Parkes has managed to compress into the shortest compass some very valuable information—a thoughtful and careful study of which at the present time will have a salutary effect. Would it not be practicable for Dr. Parkes's *confrères* at Netley to follow his example, and do for medicine, surgery, and therapeutics, what he does for hygiene—viz., give medical officers, scattered over all parts of the world, and without access to books and periodicals, something in the shape of a *précis* of practical contemporary work in these subjects? Meanwhile a Government like the present, bent on sanitary and social legislation, would be rendering a public benefit by publishing separately at a low price the Reports furnished from year to year by Dr. Parkes to these departmental blue-books.

THE COLLEGE OF PHYSICIANS.

A MEETING of the Fellows was held on Thursday, the 27th ult., at which the Report of the Committee "appointed to consider the question of the use of the title of 'Doctor' by non-graduates, and the bye-laws and regulations relating thereto," was dealt with.

The proposition laid before the College in the Report was to the effect that no non-graduate fellow or member or licentiate of the College should append to his name the initial letters "M.D." or any letters indicating that he is a graduate of medicine of a university, unless he has obtained a degree in medicine from a university legally qualified to confer such medical degree. At the same time it was proposed in the Report that henceforth in all official documents issued from the College, fellows and members might be addressed by the courtesy title of "Doctor." It was proposed and seconded by two of the Censors that the report should be adopted. Upon this a good deal of discussion arose.

Dr. PAGET asked the Registrar whether legal opinion had been given as to the power of the College to restrain non-graduates from assuming the title of "Doctor," and was informed that two opposite opinions had been given by counsel on the subject. Dr. Paget then proceeded to question the assertion that the College had not this power in the framing of new bye-laws. He then pointed out that the actual case relied upon by the Committee to sustain the opinion it had given that the College had no such power,

and in which the Lord Chief Baron of the Exchequer said, "If a man is registered he may call himself what he pleases," was not applicable to the matter before the College. That had to do with the Medical Act, and it was a proceeding under the 40th section of that Act, in reference to the assumption of medical titles implying that the holder was registered under the Act. If registration gave individuals the privilege of calling themselves what they liked, then licentiates of the College might call themselves fellows and members without let or hindrance. He asked what kind of doctor does a non-graduate person think he would be called. It is proposed to call him by a name which, to everyone who uses it, means a "doctor of medicine," and yet he is not to be allowed to put M.D. after his name. For over three hundred years it never occurred to the College to call a man a "doctor" unless he were one. But in 1838 an excuse for such a step was found in the establishment, about that time, of the University of London, which began to confer degrees. Twenty years after the College changed its mind, and again in 1864. The step proposed to the College was a great responsibility. It would be a similar principle if the Commander-in-Chief were to call everyone a colonel. The College was the highest authority in medical ethics, and it was asked to do a thing which was equivocal, and it was a questionable act for the College; the College would be assuming to do what it had no legal right to do—to give a man the title of M.D.

Dr. RISDON BENNETT moved an amendment, as he did not agree with the Report of the Committee. He felt strongly that it would be undesirable to adopt the proposal before the College. The suggestion to give the courtesy title would be opposed to the traditions of the College, and be injurious to the profession at large. At the same time he felt strongly the difficulty the College was in in consequence of its past action, and was very anxious, if possible, not to do injustice to those who came up to the College after the bye-law of 1838 was in operation. He moved—"That no Fellow, Member, or Licentiate of the College be authorised or entitled by virtue of any diploma or licence of this College to append to his name the title or initial letters 'M.D.,' or any letters indicating that he is a graduate in medicine of a university, unless he has obtained a degree in medicine from a university legally entitled to confer such medical degree."

This was seconded by Dr. HARE.

Sir WILLIAM GULL spoke against the Report of the Committee; and in reference to the difficulty of knowing what to style non-graduate fellows or members, said that the schedule of the Medical Act gave the necessary solution. The College components were fellows, members, licentiates, and extra-licentiates. The spirit of the Medical Act was that people should know who they were employing, and the status of the members of the profession was defined in the schedule. The College was asked to agree to equivocation. It was asked to do an act of courtesy; but it must not be done to themselves. It should be done to some other body, such as the College of Physicians of Edinburgh. The proposed reform would also do very great injustice to real M.D.s.

Dr. STEWART and others took the same view, urging that sham titles ought not to be given by the College, and that if members and fellows were to be all dubbed doctors, licentiates were likewise entitled to the same thing.

Dr. SIBSON referred to the unfairness which would be done to the universities, and the probability that instead of encouraging a university education in those who came up to the College for the membership, it would have the contrary effect, and so lower the standard of education. During the last twelve years or so the proportion of those who had and who had not graduated at a university before coming to the College for membership was, we understood him to say, 165 to 23. If the proposal of the Committee on Titles were adopted, it would be of little consequence whether a man had a university degree or not, and so the desire of the College that its members and fellows should have received a university education would probably be very imperfectly fulfilled.

Before Dr. Bennett's proposition was put, it was pointed out to the College that it did not explain how non-graduate members and fellows were to be addressed by or received officially at the College; and it was then suggested by several fellows that they should be addressed by their Christian and surnames with the addition of "F.R.C.P.," "M.R.C.P.," "L.R.C.P.," &c.

On Dr. Bennett's amendment being put, it was carried *nem. con.*, and subsequently, as a substantive motion. The feeling of the College was unmistakable; only one Fellow really spoke in favour of the Report.

Correspondence.

"Audi alteram partem."

ON PUNCTURE OF THE TESTIS IN ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—It is not my intention to renew the discussion on the vexed question of the treatment of orchitis by puncture of the testis, as the evidence already afforded in the pages of THE LANCET is amply sufficient to prove what I have been contending for—that it is, as Mr. Macnamara truly states, "a most valuable aid to the cure of many such cases."

I feel bound, however, before withdrawing from the scene, to enter my strong protest against the use of the term "splitting up the testicle," as applied to this operation. I always in my own written description of it employed the word "puncture." In adopting the treatment I only make a "puncture," strictly so-called, and in speaking of it to pupils I tell them to practise a "puncture."

In order that there may be no mistake about this, I will here state that the blade of the instrument used by myself is from the fifth to the sixth part of an inch in breadth; that I pass the instrument quickly into the front of the swollen organ to the depth of half or three-quarters of an inch, and that I immediately withdraw the blade, without enlarging the opening either upwards or downwards.

Veracity and fairness are highly important qualities in the conduction of any argument or discussion, and how far they have been adhered to by the use of the term "splitting up the testicle," as applied to my treatment by "puncture," I must leave to the judgment of your readers, and I would venture to refer the author of this term to Johnson's Dictionary, where the distinction between the two verbs "split" and "puncture" can be readily ascertained.

One word as to the letter of Mr. Borlase Childs. My old friend has, with praiseworthy energy, issued forth truncheon in hand to demolish me with one blow, and thus bring some aid to his discomfited comrade; but his efforts have been attended with more vehemence than effect, for he admits that he has had no experience of the treatment discussed, and what we require for the solution to the difficulty is not a homily on the virtues of "white mixture and colchicum," or of tincture of henbane as employed by our mutual and respected friend Mr. Gay, but practical evidence on the merits of "puncture" of the testis in acute orchitis by those who have used it more or less extensively.

I am, Sir, yours obediently,

Wimpole-street, January 31st, 1876. HENRY SMITH.

To the Editor of THE LANCET.

SIR,—Mr. Henry Smith's paper having brought up the treatment of orchitis, will you permit me to observe that I have found an evaporating lotion, composed of equal parts of lotio plumbi and rectified spirit, give speedy relief, after leeches, fomentations, and poultices have apparently failed.

I am, Sir, yours very faithfully,

Leeds, Jan. 31st, 1876. PHILIP FOSTER.

PARALYSIS ON THE SIDE OF A LESION IN THE BRAIN.

To the Editor of THE LANCET.

SIR,—I think the following case is another illustration of the correctness of Dr. Brown-Séquard's opinions, as explained in your columns of January 1st:—

B——, aged forty-nine, married, painter. Father died at

seventy-three, thirty-six hours after first fit. Mother paralysed after second fit; lived twelve years hemiplegic; never spoke after occurrence of paralysis; died at seventy-two.

November 20th, 1875.—Patient had very severe pain in head, followed by sero-purulent discharge from right ear. Pain gradually diminished, and ceased after two or three days, discharge continuing.

26th.—Got out of bed at 1 P.M. to relieve bowels; afterwards had dinner. At 2 P.M. his wife found him unable to speak, though she thought he understood what she said to him. Soon afterwards raised left hand to head, and grasped left leg. Then had severe convulsions, set his teeth, and threw his arms about, especially the left, for about a quarter of an hour. When seen about 3 P.M. the right pupil was insensible to light; mouth drawn to left side. When asked to put out tongue, only opened mouth wide. Paralysis of right arm and leg. Resisted any attempt to open left eye. Left hand raised to forehead; left leg drawn up. Pulse 60, strong; skin cool and moist.

27th.—Takes milk and beef-tea freely; swallows well; has passed urine in bed.

Dec. 1st.—Can say "No, no." Retention of urine. No. 12 catheter passed; about a pint and a half of urine drawn off.

2nd.—No distension of bladder; passes urine in bed.

5th.—Respiration 60; pulse 140; temperature 103·7°. Congestion of right lung; paralysis of both sides of body.

6th.—Death. No autopsy.

Of course it is possible that in the above case there may have been disease of both sides of the brain. Judging, however, from the discharge from the right ear, and its relation in point of time to the pain in head and paralysis, and considering the case in connexion with those of Dr. Brown-Séquard, it seems probable that the brain-lesion was on the right side, at first on the surface, and causing paralysis of the same side of the body, and afterwards extending more deeply, and causing paralysis of the opposite side.

I am, Sir, yours obediently,

THOMAS WAKEFIELD, B.A., M.R.C.S.E.

Nottingham-place, W., Jan. 10th, 1876.

THE DENTAL PROFESSION.

To the Editor of THE LANCET.

SIR,—My attention has been directed to a notice which appears in your journal of to-day, of a meeting of some surgeons practising dental surgery, and at which it was unanimously constituted a Society. There is one paragraph in that notice which, as it reads to me, may be possibly misunderstood, for, worded as it is, an idea might be conveyed that the possessors of the L.D.S. diploma, or certificate of competency granted by the Royal College of Surgeons, are classed equally with those persons who possess no qualification whatever. This, I can safely say, was not the intention of any one of those present on the occasion referred to; and, moreover, I feel satisfied that the writer only alluded to spurious degrees, and never intended to cast a slur on a measure which at the time was urgently needed, and which, in its results, has proved highly beneficial as regards the education of those who have passed the ordeal and entered the ranks of dental practitioners. Considering the state of the profession and the violence of opinions existing at the time, the promoters of the scheme, after much earnest consideration, came to the conclusion that its fulfilment offered the only path by which educational improvement and unanimity could then be reached. Whether the standard of qualification is not now capable of still further improvement is another question. As regards the new society itself, a few words will suffice here—the honour, character, social status, and advancement of the dental branch of the profession are the sole objects in view.

I am, Sir, your obedient servant,

January 28th, 1876. ONE OF THEM.

DR. GRAILY HEWITT has been elected an honorary member of the Obstetrical Society of Philadelphia.

BIRMINGHAM.

(From our own Correspondent.)

THE Corporation are endeavouring to improve the sanitary condition of the town by every means in their power, and their last move is to form a Drainage Commission for the district draining into the River Tame and its tributaries, under the provisions of the Public Health Act of 1875. This will comprise an area of not less than 145,000 acres and an estimated population of three quarters of a million. Should this scheme be adopted, we shall probably hear no more of the injunctions from the Court of Chancery, which have of late been so frequent. Other places have helped to contaminate the streams in question, but Birmingham has hitherto been held solely responsible for the evil results. Another step recently taken is that the Town Council is about to co-operate with other bodies in an endeavour to obtain legislative enactment, making it compulsory on medical men and others to give notice to the sanitary officers of the existence of contagious or infectious diseases. This may appear to some a rather arbitrary measure, but it is probably justified by the fact that we have only just got rid of an epidemic of small-pox, which might with timely precaution have been stamped out, and that last year scarlet fever caused 263 deaths, or 2·72 of the whole death-rate of the borough. Had proper isolation of such cases, or their removal to the infectious wards of the Borough Hospital, been insisted on, the mortality would probably have been much less, both from these and from other of the exanthemata.

The advantages offered by the Borough Hospital are not, it is to be regretted, sufficiently appreciated by the public, but time is wanted to make the institution generally known, and then no doubt it will be more utilised than it now is. The Board of Guardians, in view of their responsibilities, have decided on building two extra wards for infectious cases. That body has recently shown a paltry parsimonious spirit in dealing with Mr. Bartleet, one of the surgeons of the General Hospital, who had been called upon to amputate the leg of a pauper by one of the parochial surgeons. That gentleman's very moderate charge of five guineas for the operation and twenty subsequent visits, was cut down to three guineas, although no adequate reason could be alleged for such contemptible cheeseparing. It is to be hoped that Mr. Bartleet will enforce his claim, which is by their action admitted by the guardians, in the County Court.

"Hospital Sunday" was this year for the Queen's Hospital, and the net receipts, after various deductions for expenses and donations of a special character, were £5436, or £230 in excess of any previous collection.

The Wolverhampton and South Staffordshire Hospital almost at the same date received from a similar source a clear sum of £1599. The movement begun here has evidently taken deep root, and is bringing forth a handsome and ever increasing harvest.

The Children's Hospital presented a goodly report at the annual meeting. An increase was noticed in the income and in the number of patients. It was decided to erect a new waiting hall for the out-patients, so that cases might be examined immediately on arriving, and, if suffering from infectious diseases, be at once isolated; to build a new detached infection department, containing two fever wards of ten beds each; one diphtheritic croup ward, containing four cots, and a quarantine or reception ward with four cots; and lastly, to effect a diminution in the number of the beds in the present wards with a view of improving the sanitary condition of the hospital.

A new Homœopathic Hospital has been built and opened, and great jubilation thereat has taken place among the followers of that system. It has already cost upwards of £12,000, and £5000 more is required to complete it.

The Birmingham Lying-in Charity seems to be in less favour than formerly. The report shows that 826 cases were attended to last year, as against 1010 in the previous year, and that in addition the subscription list is falling off. May not the result be attributed to the patients disliking the present system by which they are now attended

by midwives, whereas there were three or four duly qualified surgeons in former days engaged to attend upon the cases?

The Medical Institute will probably soon be something more than a name. "A local habitation" will follow in a short time, as the Rev. George Inge has liberally presented to the institute a freehold site in the centre of the town, for a permanent building, and has also started the building fund with a donation of £100.

The Laws of Health Class, which during the last year had somewhat fallen off, has been re-opened at the Midland Institute with a lecture from Dr. F. T. Bond, on "Water in its relation to Public Health."

Birmingham, Jan. 31st, 1876.

GLASGOW.

(From our own Correspondent.)

IN my last letter I adverted to the annual report of the Western Infirmary, and since then financial and other details have been given as to the position of the Royal Infirmary for the past year. It is satisfactory to learn that the pecuniary resources of the old institution have been little, if at all, impaired by the active working of its younger *confrère*. Both hospitals are supported by voluntary contributions, and to a certain extent compete for public favour. Notwithstanding this the managers of the Royal Infirmary are able to present an excellent balance-sheet. Nearly £20,000 have been expended, but for that sum upwards of 5000 patients have been treated in the wards of the hospital during the past year. The average cost for each patient was £41 19*s.* per head. In Edinburgh it is £54 10*s.*, while in the Western Infirmary it is £67 10*s.* These figures speak for themselves, and show that a hospital can be efficiently and economically managed without an increase of the death-rate or a forfeiture of general support. The healthy rivalry, financially and otherwise, of the two hospitals is the best guarantee for effective administrative ability and for the non-stagnation of the medical and surgical staff.

There has been a little lull in the contest for the chair of Physiology. Dr. Eben. Watson's claims were at first somewhat ignored, but since then a memorial in his favour has been widely signed by medical practitioners in the city. The emoluments attached to the chair are only £400 per annum, and it has been whispered that these will scarcely tempt the Edinburgh candidate to leave his present field. Professional dignity is but an empty title without the sinews of war. It has been currently reported that Dr. Brown-Séquard has become not merely a probable but an actual aspirant for the chair.

The Medico-Chirurgical Society had a discussion lately on placenta prævia. The debate was conducted in a great measure by general practitioners, and was honest as well as instructive. Theoretical considerations were held as valueless when turning as soon as possible was the only real way to save the mother and probably the infant's life. Even those who had sat at the feet of the great master acknowledged that they had been forced to the same conclusion by the stern logic of bedside experience.

At the next meeting of the Faculty of Physicians and Surgeons, there is to be a discussion as to the propriety of a billiard-room being fitted up in one of the rooms of the Faculty Hall. During the summer months, when Glasgow migrates to the coast, it is held by some that a little relaxation of this kind would be by no means unacceptable to the jaded doctor in the cool of the evening when his family is from home. It would also tend, it is stated, to promote a friendly intercourse over a healthy and health-giving game. Those who live in broughams have little opportunity for physical exercise, and the tendency to rotund proportions would be obviated by the three miles an hour peripatetic of the billiard table. On the other hand, it is averred that relaxation, even though sanitary and salutary, should count as nought, and that the click of the billiard balls, although separated three storeys from the library and reading-room, might disturb due appreciation of Virchow's *Archiv*, or professional gossip.

As President of the University Medico-Chirurgical Society, Professor Gairdner delivered a telling address to the young alumni at a recent meeting. While acknowledging the perseverance and capabilities of Glasgow students, he urged them at the same time not to be too eager to rush into practice, but to cultivate scientific research for some years, and thus raise the tone of the profession. The wisdom of this advice cannot be questioned. Attracted by a convenient shop system and by ready cash, the newly fledged graduate is apt to lose all ambition in his calling, and to sink, without the hope of rising, to the dull drudgery of daily toil. How many good men and true we have seen disappearing, who had within them stuff for a better, and in the end more lucrative, career.

Glasgow, Feb. 1st, 1876.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a meeting of the College on Jan. 27th the following gentlemen were admitted Members:—

Bridges, Robert, M.B. Oxon., St. Bartholomew's Hospital.
Champneys, Francis Henry, M.B. Oxon., Oak-hill-park.
Finlay, David White, M.D. Glasgow, Middlesex Hospital.
Gover, Robert Mundy, Millbank Prison.
Venn, Albert John, M.D. Aberdeen, New Cavendish-street.
Whistler, William McNeill, M.D. Pennsylvania, Brook-street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 27th, 28th, and 31st of January:—

Alexander, Charles Thompson, Great Dover-street.
Allott, Wordsworth Leach, Leeds.
Boswell, Alexander, L.S.A., Disraeli-road.
Boys, Arthur Henry, Brixton-hill.
Burton, John Randell, L.S.A., Lee, Kent.
Burton, Samuel Herbert, Great Yarmouth.
Caffyn, Stephen, Silverdale, Sussex.
Chamberlain, Edward Twyford, Dartmouth.
Coombs, Graham Lowe, Chippenham, Wilts.
Cooper, John Nield, L.K.Q.C.P., Hyde, Lancashire.
Darbyshire, Samuel D., Conway, North Wales.
Ellis, William Ashton, Pimlico.
Evans, Evan William, Bath.
Ford, Arthur Vernon, Portsmouth.
Fox, Thomas Colcott, Broughton, Hants.
Grimwood, Harry Charles, L.S.A., Stowmarket.
Hayes, Thomas George, West Brompton.
Johnson, John, M.B., Camden New-road.
Jones, Abraham E., Manchester.
Kirtikar, Kanoba Ranchhoddas, Bombay.
Little, Henry Selby, Reading.
M'Carthy, Justin M'Callum, St. Thomas-terrace.
M'Cullagh, Thomas A., Liverpool.
Nicholls, Frederick, L.S.A., Stockwell.
Nicholson, John Francis, Brigg, Lincolnshire.
Pearless, Walter Ralf, East Grinstead.
Perry, Edward Verdon, Reepham, Norfolk.
Phelps, William, L.S.A., Weston-super-Mare.
Pickup, William James, Bacup, Lancashire.
Price, Robert John, University-street.
Pronger, Charles Ernest, Crawley, Sussex.
Quartley, Francis Cecil, Swindon, Wilts.
Richmond, Chas. Ernest, L.S.A., Manchester Royal Infirmary.
Roberts, William S. W., Earl's-court-road.
Rockliffe, William Craven, L.S.A., Hull.
Rogers, Frank G. A., Bedford.
Rogers, Thomas King, Hackney.
Ryley, James, Louth, Lincolnshire.
Russell, James, M.B. Aberdeen, Croydon.
Sandes, Walter H. F., New Wandsworth.
Scott, John William, Dronfield, Yorks.
Scovil, Francis Simonds, St. John's, New Brunswick.
Shoolbred, William Andrew, Wolverhampton.
Spokes, Peter Sidney, Reading.
Stephenson, William Arnold, Weymouth.
Thurston, Edward Paget, Guernsey.
Walford, Robert, Colchester.
Wartenberg, Victor Adolph, Lytham, Lancashire.
Wattville, Armand de, Pembridge-square.
Whitelyge, Benjamin Arthur, Tideswell, Derbyshire.
Wilding, Wm. Arthur, L.K.Q.C.P.I., Church Stretton.
Williams, William Henry, Sherborne, Dorset.
Wood, Edwin Stanley, Newport, Monmouthshire.
Wright, Henry, Lutterworth.

Of the 152 candidates examined during the past and present week, 38 failed to satisfy the Court of Examiners, and were referred for a period of six months' further professional study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Jan. 27th:—

Batchelor, Henry Thos., Bancroft-road, Mile-end-road.
Richmond, Chas. Ernest, Manchester.
Roberts, Henry William, Leeds.

Roche, Eugenius Alfred, Sunderland-terrace, Bayswater.
Rockliffe, William Craven, Hull.
Schön, James Edward, Wanley Lodge, Broadsebury.
Wilson, George, The Villas, Erith, Kent.

The following gentlemen passed the Primary Professional Examination on the same day:—

Foster, William, Westminster Hospital.
Livesey, Ernest William, St. Bartholomew's Hospital.

At the Preliminary Examination in Arts held at the Hall on Jan. 28th and 29th, 45 candidates presented themselves, of whom 14 were rejected, and the following 31 passed and received certificates of proficiency in General Education:—

In the First Class, in order of merit: Edwin E. L. Bowling, John Fuller Jopse, John Lawrence, and Frances Helen Pridgaux. 5th. Stephen Henry Appleford and Ronald Volckman. 7th. Ashley Bird and Charles Nathaniel Simons.—In the Second Class, in alphabetical order: Arthur J. M. Armstrong, William Taylor Ball, Reginald Hewitt Boycos, Geo. Thompson Burbidge, Francis Henry M. Burton, George D. Crowther, Laura Ormiston Dibbin, Wm. Frederick Everett, B. C. E. F. Gunn, Herbert L. Hawksley, Robert Holloway, James Prytherch James, J. D. Stacey Jones, Frederick John Lilly, John Palmer, John Perché, Wm. de Mernet Riddell, Francis Stewart Simmonds, George Stooker, Chas. Edward Strökkland, Benjamin Emile Studer, James Turton, and Francis Verdon.

PRESENTATION.—On the 25th inst. Mr. W. H. Davies, L.R.C.P. Lond., &c., of Penner House, Newport, Mon., was presented with a testimonial, consisting of an illuminated address, silver tea and coffee service, silver salver, Cassell's Bible illustrated by Doré, and a purse of gold. The testimonial originated and was presented by the workmen and inhabitants of Abercarne and neighbourhood, amongst whom Mr. Davies has practised for several years, and was intended as a tangible expression of their esteem and gratitude for his uniform kindness, promptitude, and skill in his professional attendance upon them and their families. The subscriptions amounted to £115.

BEQUESTS, &c., TO MEDICAL CHARITIES.—The executors of the will of Mr. Roger Lyon Jones, of Liverpool, have made a division of a sum of £300,000, bequeathed for local charities, by which the Royal Infirmary has become entitled to £25,000, the Southern Hospital to £20,000 and the Northern Hospital to £20,000. The Royal Portsmouth, Portsea, and Gosport Hospital has become entitled to £1000 under the will of Mr. Alexander Hall Hall. The Darlington Hospital and Dispensary has become entitled to £1000 under the will of Mr. William Bouch. The Goldsmiths' Company have granted a donation of £50 to the Western Ophthalmic Hospital, Marylebone-road.

Medical Appointments.

ARGOUP, W. T., M.R.C.S.E., has been appointed a House-Surgeon to the West London Hospital, Hammersmith, vice Scott, whose appointment has expired.

BARKER, Dr. J. E., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilcullen Dispensary District of the Naas Union, Co. Kildare, vice Barrett, deceased.

BARNES, Dr. F., has been appointed Obstetric Physician to the St. George's and St. James's Dispensary, King-street, Regent-street.

CANE, L., M.D., B.S., M.R.C.S.E., has been appointed Consulting Surgeon to the Peterborough General Infirmary.

FITZPATRICK, THOS., M.D., M.R.C.P.I., has been appointed Physician-Accoucheur to the Western General Dispensary, Marylebone-road, vice Geo. Eastes, M.B., F.R.C.S.E., L.R.C.P.I., resigned.

HEATH, H. T., L.R.C.P.Ed., has been appointed House-Surgeon to the Ripon Dispensary and House of Recovery.

HOWISON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Court Rose of Ruby, No. 4203, of the Ancient Order of Foresters, Darlington.

JONES, T. E., M.D., F.R.C.S.Ed., has been appointed a Consulting Surgeon to the Wrexham Infirmary, on resigning as Surgeon.

JONES, W. M., M.R.C.S.E., has been appointed Resident House-Surgeon to the Rotherham Hospital and Dispensary, vice Garrard, resigned.

LEACH, HARRY, M.R.C.P.L., has been appointed a Physician to the "Dreadnought" Seamen's Hospital, Greenwich, vice Stephen H. Ward, M.D., F.R.C.P.L., resigned.

MACKINTOSH, A., M.D., L.F.P. & S. Glas., L.M., has been reappointed Medical Officer of Health for the Chesterfield Rural Sanitary District, and for the Whittington, Dronfield, Newbold-cum-Dunston, Brampton, Walton, and Clay-lane Urban Sanitary Districts.

MACRAE, J. F. C. H., M.R.C.S.E., has been appointed Surgical Registrar and Assistant Chloroformist at St. Bartholomew's Hospital, vice Milner, resigned, and Burgess appointed Midwifery Assistant.

MAYOU, H. C., M.D., has been appointed Medical Superintendent of the West Riding of Yorkshire Lunatic Asylum, Wakefield, vice Dr. Crichton Browne, appointed a Chancery Visitor of Lunatics.

MORGAN, J. H., M.R.C.S.E., has been appointed Surgical Registrar and Chloroformist to St. George's Hospital, vice Thrupp, whose appointment has expired.

OWEN, W., M.R.C.S.E., has been appointed Medical Officer for the Out-patient Department of the City of London Lying-in Hospital, City-road, for the Bethnal-green District, vice Purvis, deceased.

PARKER, T. B. B., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for Nos. 1 and 2 Districts of the Cricklade and Wootton-Bassett Union, and Medical Officer of Health for Nos. 1 and 2 Sub-districts of the Cricklade and Wootton-Bassett Rural Sanitary District, vice Petman, resigned.

QUIRK, J., L.A.H. Dub., L.M., has been reappointed Apothecary to the Workhouse, Tullamore Union, King's County.

RAVENHILL, T. H., M.R.C.S.E., has been appointed an Hon. Surgeon to the Birmingham Lying-in Charity, vice Warden, resigned.

RICE, G., M.B., C.M., has been appointed Medical Officer to the Chorlton Union Workhouse, vice Symmons, resigned.

RHODES, F., M.D., L.R.C.P.L., has been appointed Medical Officer for No. 3 District of the Chorlton Union, Lancashire, vice Allen, resigned.

WARD, S. H., M.D., F.R.C.P.L., has been appointed Consulting Physician to the "Dreadnought" Seamen's Hospital.

WHITEHEAD, T. B., L.R.C.P.Ed., M.R.C.S.E., L.M., has been appointed Medical Officer for the Dunchurch District of the Rugby Union, vice Torrance, deceased.

WILLANS, W. B., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Hadham District of the Bishops-Stortford Union, vice Moore, resigned.

WILLIAMS, J., M.D., M.R.C.S.E. (formerly of Sudbury, Suffolk), has been appointed House-Physician to the Melbourne Hospital, Australia.

WILLIAMS, J. L., M.B., C.M., M.R.C.S.E., has been appointed a Surgeon to the Wrexham Infirmary, vice Jones, resigned.

WILLIAMS, M., L.R.C.P.Ed., L.M., M.R.C.S.E., has been reappointed Medical Officer and Public Vaccinator for the Cardiff West District of the Cardiff Union.

Births, Marriages, and Deaths.

BIRTHS.

CURRIE.—On the 6th ult., at Trinity Hall, Bungay, the wife of J. Legge Currie, L.R.C.P.L., of a daughter.

KILROY.—On the 24th ult., at Highfield, Southampton, the wife of Philip Le Feuvre Kilroy, L.R.C.P.Ed., Surgeon-Major Army, of a son.

MILSON.—On the 27th ult., at Finchley-road, the wife of R. H. Milson, M.R.C.S.E., of a son.

PARKINSON.—On the 31st ult., at The Close, Bretton, Saltburn-by-the-Sea, the wife of J. Taylor Parkinson, M.B., of a son.

PEARSON.—On the 27th ult., at Middlesbrough, the wife of T. R. Pearson, M.D., of a daughter.

RITCHIE.—On the 29th ult., at Melville-crescent, Edinburgh, the wife of Robert Peel Ritchie, M.D., of a son.

MARRIAGES.

ALLEN—DOVER.—On the 1st inst., at St. Mary Abbotts, Kensington, Dr. Bryan H. Allen, of Hastings, to Ella Louise Katherine, only daughter of the late Rev. Robert Hodson Dover, Vicar of Willesden, near Bradford.

HAYNES—HIRON.—On the 27th ult., at St. George's, Hanover-square, Frederic Harry Haynes, M.D., of Leamington, to Henrietta, youngest daughter of the late John Hiron, Esq., J.P., of Campden, Gloucestershire.

DEATHS.

FINDLATER.—On the 22rd ult., James Findlater, L.R.C.P.Ed., of Glasgow, aged 27.

GIBSON.—On the 5th ult., at Dundee, Wm. Lockhart Gibson, M.D., aged 68.

HARDINGE.—On the 28th ult., at Grafton-street, Berkeley-square, Henry Hardinge, M.D., aged 56.

HEATHCOTE.—On the 24th ult., at Lydiate, Lancashire, Michael Heathcote, Surgeon, aged 85.

JOHNSON.—On the 24th ult., at Newcastle-on-Tyne, Geo. Brack Johnson, M.R.C.S.E., aged 36.

MANNING.—On the 17th ult., at Croughton, Northamptonshire, Edward Manning, Surgeon, aged 84.

MASON.—On the 30th ult., at Lewisham High-road, J. D. Mason, L.R.C.P.Ed., aged 69.

MEGGET.—On the 29th ult., at Winlaton, Durham, Archibald Megget, M.D. (late of West Ayton, near Scarborough), aged 68.

SCHUSTER.—On the 23rd ult., at Barrow-in-Furness, Edwin Schuster, L.R.C.P.Ed., aged 37.

SCOTT.—On the 29th ult., at Milton-bank, Dunoon, David Scott, M.D.

VOELCKER.—On the 28th ult., at University College Hospital, Geo. Henry Voelcker, M.B., M.R.C.S.E., aged 23.

WAYTE.—On the 18th ult., at Rome, Chas. M. Wayte, M.B., aged 54.

WETHERFIELD.—On the 25th ult., at Croom's-hill, Greenwich, John Wetherfield, M.R.C.S.E. (formerly of Henrietta-street, Covent-garden), aged 76.

WILSON.—On the 20th ult., at Brookborough, Co. Fermanagh, John Wilson, M.D., aged 46.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS, ETC. RECEIVED.

Dr. Le Laplaque: Maladies Vénériennes.
Royle's Materia Medica.
St. Bartholomew's Hospital Reports.
M. Maudl: Hygiène de la Voix.
Mr. Miracle: Lessons from Nature.
Dr. Sturges on Pneumonia.
Mr. Bancroft: The Native Races of the United States of N. America.
Helen Zimmern: Arthur Schopenhauer; his Life and Philosophy.
Mr. J. W. Jones: Evolution of the Human Race from Apes.
Mr. Platt: On Business.
Conrad Mark: Excavations of the Kesslerloch.
Local Government Directory, 1876.
Mr. Cooke: Scientific Culture.

Notes, Short Comments, and Answers to Correspondents.

MEDICAL OFFICERS IN THE GERMAN ARMY.

THE great strides which the German or rather the Prussian Army Medical Department has made during a period of successive wars with regard to improvements in military rank and pay seem to have met with a check. AN Army Warrant of 1873 promised them the full pay of their relative military rank, and, the fulfilment of this promise pending, much discontent is said to be felt, especially in the lower grades, where the salaries are still rather scanty. A medical member of the Reichstag, seconded by another colleague in the House, urged the Imperial Government, when preparing the estimates for next year, to accede to the demands of the War Minister for further funds towards the much-desired pecuniary amelioration. The President of the Chancellery, however, declined by pointing to the income enjoyed by many army doctors from private practice; and after a non-medical member had advised a reduction in the number of the medical staff in large garrison towns, the military budget was voted in conformity with the former proposals of the Chancellery. The two military medical educational establishments, which form, in fact, one school at Berlin, do not furnish a sufficient number of candidates for the lower grades, the middle and upper being at the same time rather overstocked. In consequence of this, a good deal of the hospital and regimental drudgery service is left to the young doctors who serve their terms of general military duty. Only few of them remain in the standing army, as they, being educated at the Universities, prefer civil independence and private practice with better remuneration. The pupils of the Military School, compelled to stay, in recompense for the free education they have received, for a period of seven or eight years, soon crowd the higher appointments. The perils of having inexperienced men in the lower grades were made very conspicuous during last summer, when a battalion of infantry during the manœuvres, marching on a hot, sunny day, lost twelve men from heat apoplexy. The report of a Court of Inquiry, ordered by special command of the Emperor, which was published quite recently, brought to light that a one year's volunteer was the medical officer in charge, that he mistook the alarming symptoms of the dropping men for simple weakness, and that he omitted, from ignorance, to warn the commanding officer of the danger in continuing the march during midday. The system of educating medical students as cadets in special institutions has been supplanted, with great advantage, in the Saxon Army Corps, on the advice of its surgeon-general, by an arrangement, according to which every one year's volunteer from the University is paid a sum in advance for the term of three or five years he engages to stay in active service. This money is to be considered a partial repayment of the sums spent on his professional education at the University, and amounts to £15 for each year he stays in the army in *addition* to his regular pay, so that sums of £45 or £75 are paid him at the commencement of the contract term. A fair lot of the better class of men are said to be secured by this means.

X. Z.—He should open each cavity of the body, and examine all the viscera.

"THE DOUBLE PROP OF UNQUALIFIED PRACTICE."

To the Editor of THE LANCET.

SIR,—A letter appears in your issue of Saturday last, signed by Mr. Shaw, of Rotherhithe, in which my name stands out rather conspicuously. First, it would appear that some Mr. Brown borrowed from Mr. Shaw some tooth instruments, and sent in his name "Brown for Dr. Garrett." Now, Sir, I know nothing of any Mr. Brown in that or any other part of London; and all I can say is, if Mr. Shaw lent his instruments without knowing his man, the wonder is that he ever got them back again.

Now for the dispensary. Two young men, for whom I have a deep regard, were working up for examination at the College of Surgeons; one had passed the Hall, and was registered. They wished to take a pupil or two from their respective schools (King's and St. Mary's) to live and read with them. Their *esprit de cœur* tempted them to open a self-supporting dispensary in that growing and populous, but poor locality, Rotherhithe, selecting such a spot chiefly from the practical experience they might expect to get in their profession—certainly not for emolument or dignity. They, knowing that I had chambers in Belgravia, where I receive my metropolitan patients, requested me to aid them in this dispensary. I did not withhold my consent, but have assisted them chiefly on the grounds of friendship and philanthropy, certainly not for gain.

Regarding the certificates. I have signed one occasionally, matters being usually pressing in those places; but I generally gave the registrar to understand on the face of the document that I had not personally attended, but certified "that, to the best of my knowledge and belief, the cause of death was ——." This document was given on indisputable evidence (whenever it was given), and the registrar, I believe, accepted it.

As to the writing on the walls I am not responsible for that, and my hurried visits have prevented my noticing that kind of decorative literature to which Mr. Shaw alludes. I am, &c.,

C. B. GARRETT, M.D.

Hastings, and Lupus-street, S. Belgravia, Jan. 31st, 1876.

SANITARY CONDITION OF HASTINGS.

IN answer to several correspondents, we have to state that the subject shall receive our attention next week.

R. S. V.—Williams's book on Veterinary Surgery, a new edition of which is reviewed in another column.

THE GRESHAM LECTURES.

THE Court of Common Council has agreed to a resolution of the Joint Grand Gresham Committee, expressing their opinion that it is desirable that the Gresham Lectures, and the funds applicable to their support, should be placed, with the assistance of the Charity Commissioners, on a more satisfactory footing. In the course of the discussion Sir Chas. Reed gave an able historical summary of the Lectures, and another speaker testified to the value and public interest of the course on Medicine delivered by Dr. Symes Thompson. It is greatly to be desired that this fresh action in the matter may result in making these Lectures more conspicuously what they were designed to be by their founder—a means of "advancing learning in London."

A Young Practitioner, (Manchester.)—The idea, though a bold one, is not altogether new. The late Mr. J. W. Jackson, in his essay on Man—a highly suggestive work,—speaks of the human nervous system as a tree with a solar root—that is, having its root upwards,—in contrast with a plant of the vegetable kingdom, which has its root in the earth.

Mr. H. W. Davis.—A definite answer was given at the time. It is far too late to refer to the matter again.

Student.—The time has not yet been announced for the new edition of Bryant's Surgery.

ANALYSIS OF BUTTER.

To the Editor of THE LANCET.

SIR,—The entire failure of the first appeal under the Food and Drugs Act to the Excise Laboratory at Somerset House, as recorded in THE LANCET of Jan. 22nd, fulfils to the letter the opinion expressed in several quarters of the incapability of the Excise to act as a Court of Appeal in disputed cases, the decision of which Court is to be considered as final. The absurdity of pronouncing any chemist or body of chemists infallible, and to give him or them the power to set aside the analyses and certificates of other chemists, is strikingly illustrated by the appeal in question.

In the case alluded to, Drs. Muter and Dupré and Mr. Wigner pronounced a sample of butter to be adulterated; while Mr. Bell, of the Excise, certified it to be genuine and pure. It is not stated, however, upon which methods the above-named gentlemen based their conclusions, although there can be little doubt that they employed one or other, or both, of those to which I am about to refer.

You remark that "the proximate analysis of butter is still in a most unsatisfactory state," and that the "published methods, though valuable in themselves, are hardly of a kind to inspire much trust."

Having myself, together with Mr. Arthur Angell, public analyst for Hants, published a treatise on Butter, and proposed and employed a new method for the detection of foreign fats in that commodity, and being well acquainted with the method described by Dr. Hassall in "Food, Water, and Air," to effect the same purpose, I should feel much obliged if you would allow me to contradict the above quoted remarks, and to affirm that the methods are of a kind to inspire trust and confidence. There are very few cases of adulterated butter, indeed, in which it is not possible to detect, and even estimate, the amount of foreign fat, provided the two methods are judiciously combined, and the results of the one taken to corroborate those obtained by the employment of the other.

As proof, I may mention that the two processes referred to are now employed by many public analysts, that they have given very satisfactory results in all cases in which they have been fairly tried, and that several convictions under the Adulteration Acts have already been obtained, based upon results given by the methods in question.

I am, Sir, your obedient servant,

Pall-mall, Jan. 26th, 1876. OTTO HEHNER, Analytical Chemist.

*** Mr. Otto Hehner objects to our recent statement that the published methods for the proximate analysis of butter, though valuable in themselves, were hardly of a kind to inspire much trust. We are unable to retract our words. We did not state, and by no means intended to imply, that the methods in question might not turn out to be trustworthy. We cordially hope they may. But they are certainly not methods that can be trusted by chemists without the most rigorous verification. Every chemist knows the slight circumstances that will affect melting points; while scarcely any chemist, if any, as yet knows what variations of melting point and composition are possible in genuine butter. Until the outside limits of these variations are known with certainty, doubt must hang over the subject; for it must be remembered that, to be useful, the methods to which we refer must give tolerably accurate quantitative as well as merely qualitative results. Nothing is more likely to throw discredit on the present crusade against adulteration than the employment of ill-verified processes; for the public conscience is sure to revolt against the infliction of penalties which may bring ruin to tradesmen on evidence which is subject to any doubt. Public analysts seem in danger of forgetting that it is their duty not to obtain as many convictions as possible, but to arrive in each separate case at the truth.—ED. L.

Rotunda.—To practise in the South or other parts of France, an English physician must obtain the special permission of the Minister of Public Instruction; or he may pass an examination for the degree of Doctor of Medicine in any of the three Faculties—Paris, Montpellier, or Nancy. Previously, however, he must prove that his preliminary examination has been equal to the French diploma of Bachelor of Letters. The inferior rank of "Officier de Santé" also confers the right of practice, but within a limited area. A letter addressed to the Secretary of the Faculty of Medicine of Paris will be courteously answered, and the desired information obtained.

Dr. Joseph Jones, (New Orleans.)—The receipt of our correspondent's communication and the accompanying volume is acknowledged.

LIVING IN ONE ROOM.

IN recently addressing his constituents, Sir Sidney Waterlow expressed his surprise and disappointment that the Metropolitan Board of Works, as part of their scheme for building on the space to be made by clearing the unhealthy area in Holborn, propose to have erected in flats 1000 single-roomed tenements. Now, the misery, unhealthiness, moral degradation, and physical degeneracy involved in living and bringing up a family in one room, in health or in sickness, with the incidental occurrence of births or deaths, can be easily imagined, without straining the imagination, even by those used to dining-room, drawing-room, nursery, and bedroom. Living in one room is undoubtedly at the root of much of the disease, pauperism, and vice of our large towns. This evil cannot, however, be cured by pulling down all the squalid neighbourhoods in which the wretched houses are let out in single-roomed tenements at rents from 1s. 6d. to 2s. 6d. per room, and building in their place improved dwellings with no tenements having less than two rooms, the rents of which range upwards from 4s. per week. Without for one moment wishing to disparage the usefulness of the work done by Sir S. Waterlow's Company, and others engaged in supplying the undoubted demand for improved dwellings, and by the trustees of the Peabody Fund, there has at present been too little done to provide for the wants of the very poorest of the working classes, dock labourers, porters, costermongers, organ-grinders, crossing-sweepers, &c. It is very well in theory to say that people ought not to live in one room, and we may hope for the day when this will come to pass; but there is a considerable proportion of such a population as inhabits the condemned area in Holborn, for instance, that appear to have no chance of ever being able to pay the rent required for two rooms. It is useless to ignore the existence of this class, and it is necessary to provide for their wants. Therefore we venture to differ from Sir S. Waterlow, great authority as he is on buildings for the working classes, in believing that all these improvement schemes should include a considerable proportion of superior single-roomed tenements. From a sanitary point of view, the worst features of the single-room system arise from the letting out of rooms in houses which were not built for the purpose, where no provision is made for ventilation, water-supply, cooking, &c. For single men and women, large numbers of whom live alone in London, single-room tenements are often not only a necessity on account of their small earnings, but are scarcely open to objection, as they are used as little more than bedrooms, except on Sundays. Until by some social revolution the condition of the lowest of our labouring classes is materially raised, it is, we fear, necessary to recognise the necessity for single-roomed tenements, and it appears to us that the substitution of airy, wholesome tenements of this class, for the dingy, dilapidated, unventilated, and disease-stricken rooms of these condemned areas, will probably constitute a still more important sanitary reform than the erection of improved dwellings with two, three, and four-roomed tenements for the better class of artisans and mechanics.

Dr. Balbirnie is thanked for his communication. We shall probably issue a commission of inquiry at an early date.

SWALLOWING ARTIFICIAL TEETH.

To the Editor of THE LANCET.

SIR,—The annals of dentistry furnish us with many examples of the dangers arising from keeping single false teeth in the mouth when retiring to sleep, and the following case furnishes a notable instance of it. It has many points of resemblance with one recorded in the *British Journal of Dental Science* for October, 1869, both from the nature of the accident and the method of procedure used in the extraction, while its distinctive features will be apparent from the history.

On the morning of Sept. 3rd a messenger came in great haste to my house, asking me to go with all speed to Miss L. H——, as her friends thought she was choking. On inquiry I found that during sleep a plate of platina with two teeth attached had become dislodged, and had been swallowed. A medical friend being with me at the time, I asked him to accompany me, and, taking with us a probang and throat forceps, at once hastened to afford her relief. On arriving I found my patient sitting on a chair, retching, and complaining of great pain in the œsophageal region. There was a slight trace of blood in what she ejected, and she was in a state of great excitement. I made a careful examination of her throat, hoping to be able to see or feel the plate there, but could not detect it. I then gave her a little water to drink, but this increased the vomiting, and caused her a considerable amount of pain. I immediately proceeded to pass the probang, and having introduced it to a considerable length, I drew the spring and pulled it smartly up, when it came out with a slight resistance. She then told me she felt as if something had torn her throat, and that she felt easier. I then re-examined her mouth, passed my finger in, and discovered the plate at the base of the tongue, and with a little difficulty, owing to the sharp spikes at its end, extracted it. For a few days my patient experienced considerable pain in swallowing; she was placed on farinaceous food, and made a rapid recovery.

Yours truly,
Halifax, Yorks, Jan. 1876. T. M. DOLAN, L.R.C.P.E., &c.

PARTNERSHIP BETWEEN DOCTOR AND CHEMIST.

THIS kind of association is not legal in France, and a fine was lately imposed upon a Paris physician and a pharmacien for being guilty of such a combination. The chemist's business actually belonged to the physician, who was residing in the same house. A peculiar syrup was the preparation upon which the practice hinged, and the patients found it readily at the chemist's shop. Each partner was fined £4 and costs. Such associations may also be found in London.

Dr. J. Carruthers.—We cannot notice the matter.

INTERNAL URETHROTOMY.

THIS is especially applicable in resilient narrowing; but the tendency in modern times has been to search for stricture whenever some uneasiness is experienced about the urethra. The bougie à boule, or more recently Dr. Otis's bulbs, are used in order to discover the spot. It may so happen that the stricture lies near the meatus, and is connected with a band not tight enough to interfere with proper micturition. But in a case reported by Dr. Chamberlain in the *Medical Record* of New York (Dec. 25th, 1875), this state of urethra gave rise to nervous symptoms of a very distressing kind. The stricture having been made out by Dr. Otis's bulbs, it was divided in the usual manner; the nervous trouble at once ceased, and did not reappear.

JAUNDICE AFTER MEASLES.

To the Editor of THE LANCET.

SIR,—Having within the last month seen three cases of jaundice following measles, and not having previously seen or, as far as I can remember, read, of this as a sequela of that disease, I thought it might be interesting to record them.

The first and most severe case was in a girl, aged twelve, who was admitted into the hospital on Dec. 27th, 1875. The mother said her daughter had only been out of bed three days, having just recovered from a severe attack of measles, for which she had been treated by a medical man. On presenting herself at the hospital she was severely jaundiced. The urine on examination was found to be loaded with bile; the fæces were pale and very offensive, showing there was little or no bile entering the intestinal canal. The area of hepatic dulness was increased.

The two other cases were only slight attacks, one being the brother of the girl before mentioned. He had measles at the same time as his sister, but did not show any symptoms of jaundice till fully three weeks later. He was also admitted into the hospital.

I think there can be no doubt that these were cases of jaundice from catarrh of the mucous membrane of the gall-ducts, consequent on the attack of measles.

I am, Sir, yours faithfully,
CHAS. E. BELL, M.R.C.S.

Devon and Exeter Hospital, Jan. 28th, 1876.

Army Surgeon.—We should consider him only bound to tell his immediate superior in his own department.

Student.—1. Dr. Eustace Smith's book on the Diseases of Children.—2. Dr. Gaillard Thomas's work.—3. The text-book mentioned.

Mr. W. McDermott.—Certainly not.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—I am very sorry to see that many medical officers of health are advocating the compulsory registration of infectious diseases. I quite agree with them that it would be of the greatest use if it could be carried out. From my experience I think it would be absolutely impossible. The effect of such legislation would be, that those people who wished to conceal such cases—i. e., the greater portion of the public—would never send for a medical man at all, but would employ a quack, who is not bound to send information to the authorities, and who would conceal the nature of the disease from the people who employed him. With their connivance quacks do plenty of mischief already, without the profession playing into their hands. Then, who is to prove any given case? I do not think that any magistrate would convict on the unsupported testimony of *one* medical man, however eminent. And, again, what medical man would swear to a case of typhoid fever or measles (after the rash had gone), all the particulars of which had been hidden from him? It is one of those pretty theories which cannot be carried out in practice. It would, if enforced now, do more to make sanitation repulsive to the English people than anything that could be devised.

Your obedient servant,
January, 1876. A M. O. H. OF A COMBINED DISTRICT.

Mr. John Marshall.—The opinion referred to has been amply published in our columns; otherwise we should be glad to publish our correspondent's letter.

Mr. W. A. Gamgee.—The advertisement is most objectionable.

SANITARY ORGANISATION IN BLACKBURN.

To the Editor of THE LANCET.

SIR,—I see in to-day's issue you make a slight error under the heading of "Typhoid Fever and Sanitary Organisation in Blackburn." You state that "the guardians of the rural portion of the union have appointed their three district medical officers as medical officers of health, at salaries of from £15 to £20 per annum." Such was the case at the time of the appointment; but after holding mine (the Darwen district) for one year, ending September last, at a salary of £15 per annum, I asked for an increase of salary, which was refused, and upon which I resigned. The post is now held by the medical officer of health for the borough of Blackburn.

I am, Sir, yours truly,
Over Darwen, Jan. 28th, 1876. JOHN H. WRAITH.

L. P. V.—The certificate in State Medicine from Cambridge University. Information regarding the conditions of the examination may be obtained by application to Dr. Paget or Dr. Humphry.

Mr. Bateman (Forest Hill) is thanked. It happened that the matter was already under consideration.

REGISTRATION OF DEATHS BY THE UNQUALIFIED.

To the Editor of THE LANCET.

SIR,—May I place before your readers (as I understand it) the opinion of a solicitor, who is also a coroner?

Anyone may *practise* as a medical man, but may not take or use any of the titles or descriptions contained in the 40th clause of the Medical Act of 1858. So far as the carrying out of the Registration Act is concerned, a medical certificate of the cause of death is not necessary in any case. The Registration Act contains a clause relating to unqualified practitioners, and the registrar cannot refuse to register a death simply because none but an unqualified man has been in attendance.

Yours truly,
January, 1876. M.R.C.S.

THE COLLEGE OF PHYSICIANS AND TITLES.

SEVERAL other letters have reached us on this subject. But the decision of the College terminates the discussion on both sides, of which almost everything that can be said has been said. One correspondent, who likes to style himself "A Surgeon," suggests that the College of Physicians should confer the honorary title of Doctor on their licentiates of standing who desired it; to which it is obvious to reply that the College has no such power.

An Old Subscriber.—We know nothing whatever of the individual mentioned. The patient had better rest satisfied with the opinions of the eminent men whose names are given.

Mr. Rosser is thanked.

TREATMENT OF LUNATICS.

To the Editor of THE LANCET.

SIR,—In the paragraph in your last issue referring to the attack made upon Dr. Brushfield by a patient, you observe that "it is a rule of this well-conducted asylum that no allusion is allowed to be made in the hearing of a patient who has attempted escape, or committed any act of violence, to the circumstance of his outbreak." You might have gone further, and stated that in *every* well-conducted asylum this rule is observed; for during a residence of sixteen years among the insane I never heard of any practice to the contrary. Your obedient servant,

OCTAVIUS JEPSON, M.D.,
Medical Superintendent.

City of London Lunatic Asylum, Stone, near Dartford, Kent, Feb. 1st, 1876.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Southey, London; Dr. Murchison, London; Mr. W. Adams, London; Dr. Buzzard, London; Mr. J. Hutchinson, London; Mr. Maunder, London; Mr. G. Lawson, London; Dr. Bastian, London; Mr. J. Gay, London; Dr. Renton, Hamilton; Dr. Carruthers, Marchfield; Dr. P. Foster, Leeds; Mr. E. Cooke, London; Mr. Shaw, Rotherhithe; Dr. Rogers, London; Dr. Bucknill, Rugby; Mr. F. G. Brown, London; Mr. Fox, Bristol; Mr. Marley, Sierra Leone; Mr. Le Motte, Madras; Mr. Symons, Dumfries; Mr. Johnstone, Edinburgh; Miss Halket, Lytham; Mr. Jackson, London; Mr. Scott, Southampton; Mr. Ganan, Ashburton; Mr. Annandale, Edinburgh; Mr. Dolan, Halifax; Mr. Cartwright, London; Mr. D. Hemming, London; Mr. Burdett, London; Dr. Haynes, London; Dr. Prior, St. Albans; Mr. C. Bell, Exeter; Mr. Godson, London; Dr. F. Barnes, London; Mr. Carpenter, London; Mr. H. Smith, London; Dr. Orton, Hornsey; Captain Fortescue, London; Dr. McDermott, Hexham; Mr. Gossett, Croydon; Mr. McNab, Inverness; Mr. Bartley, Woolwich; Dr. Boddard, Gard; Mr. Raye, Lincoln; Mr. Hardwicke, Sheffield; Mr. W. Reeves, London; Mr. Padby, Swansea; Dr. Stallard, San Francisco; Dr. Britton; Mr. Hamilton Cartwright, London; Dr. Leonard Cane; Mr. J. Wraith, Darwen; Dr. Kitchener, Bath; Mr. Soper, London; Dr. Garrett, Hastings; Mr. Buchan, Glasgow; Mr. Shemilt, Wroughton; Mr. Hume; Mr. Rowlatt, Paris; Dr. Carson, Portsmouth; Mr. Forster, London; Dr. Cane, Peterborough; Mr. Davies, Newport; Dr. Adam; Mr. Fleming, Chatham; Mr. Watt, York; Dr. Rugg, Clapham; Mr. Jones, Castletowne; Dr. Spencer, Preston; Dr. Leftwich, London; Dr. Hingston, Liskeard; Dr. Marshall, Dover; Dr. White, London; Mr. Pemberton, Birmingham; Dr. Jepson, Dartford; Dr. Gibson, London; Mr. E. Cresswell, Dowlais; Dr. Sheen, Cardiff; Mr. Richardson, Rusholme; Mr. Harper, London; Mr. Rosser, Birmingham; Mr. Godfrey, Northampton; Mr. Cuffe, Woodhall Spa; Mr. T. Cooke, London; Mr. Garrard, Rotherham; Mr. Davies, Brompton; W. H.; J. A. H.; X. Y. Z., Bath; Medicus, Wigan; L. F. V.; The Registrar, Royal College of Physicians; A Sheffield Chemist; X. Y.; W. C. A.; The Editor of the *Kentish Mercury*; The Registrar of King and Queen's College of Physicians, Ireland; Student; Rotunda, Dublin; Army Surgeon; Gerald; Medicus, Brecon; A Surgeon; Student; A. B.; Alpha; A Disgusted Doubly Qualified; M.D., Maida-hill; R. M.; W. C.; The Secretary of the City of London Lying-in Hospital; M. B. C. S.; An Old Subscriber; Head Master; Enquirer; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Mocatta, Buncorn; Mr. Sellers, Radcliffe; Mr. Lucas, Cambridge; Mr. Fawthorp, Queensbury; Mr. Ritchie, Otley; Rev. T. Williams, Cardiff; Mr. Woolley, Heanor; Dr. Hardwicke, Rotherham; Mr. Lewis, Dover; Mr. Robinson, Denbigh; Dr. Currie, Bungay; Mr. Browne, Aldborough; Dr. Murray, Kingstown; Mr. Carr, Scarborough; Messrs. Smith & Son, Manchester; Mr. Grant, Maidstone; Mr. Glyde, Ipswich; Mr. Aitken, Inverness; Dr. George, Whitchurch; Mr. Brigham, Ilkestone; Dr. Thomson, Oldham; Mr. W. M. Jones, Rotherham; Messrs. Corbyn Brothers, Birmingham; Mr. Bedford, Amersham; Mr. Burroughs, Bridgwater; Mr. Rattel, Arras; Mr. Jones, Towyn; H. M., Shipston; W. R. E., Bristol; Alpha, Dawley; Medicus, Bristol; M.D.; X., Chorley; J. B. B. D., Cambridge; F.R.C.S., London; Medicus, Market Harborough; Prompt; Medicus, Manchester; A. B., London; Chemicus, Peckham; F., London; A. L., Sheffield; A. B., Bideford; Medicus, Deal; R. T., Halstead; Alpha, Liverpool.

Leeds Mercury, East London Observer, Keene's Bath Journal, Manchester Guardian, Surrey Advertiser, Macclesfield Guardian, Newcastle Chronicle, Macclesfield Courier, Brighton Observer, Dowpatrick Recorder, Birmingham Morning News, Cork Constitution, Western Morning News, Sheffield Daily Telegraph, Glasgow Herald, Liverpool Post, Pontypool Free Press, and *Hastings and St. Leonard's News* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 A.M. by Steward's Instruments.)

THE LANCET OFFICE, FEB. 3RD, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
Jan. 28	30·34	S.E.	42	43	...	49	40	...	Foggy
„ 29	30·32	S.E.	35	35	...	50	28	...	Foggy
„ 30	30·25	S.E.	45	48	...	50	34	...	Foggy
„ 31	30·46	S.E.	45	47	...	55	44	·08	Cloudy
Feb. 1	30·21	S.	41	44	...	50	42	...	Overcast
„ 2	30·15	N.W.	44	45	...	49	42	·11	Overcast
„ 3	30·37	W.	38	40	...	46	35	...	Cloudy

Medical Diary for the ensuing Week.

Monday, Feb. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. R. J. Lee: Description of a Machine for creating a Warm Atmosphere suitable for Pulmonary Complaints.—Dr. de Havilland Hall: A Man with Transposition of Viscera. Mr. Richard Davy, "On two Cases of Reamputation."

Tuesday, Feb. 8.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Dr. Vandyke Carter, "On the Bouton de Biskra (Mycosis Cutis Chronica)."—The late Mr. G. Gascoyen, "On Sphacelus of the Thyroid Gland."

Wednesday, Feb. 9.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
HUNTERIAN SOCIETY.—7½ P.M. Annual Meeting; Election of Officers.—8 P.M. Hunterian Oration, by Mr. H. G. Sutton.

Thursday, Feb. 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Feb. 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
HUNTERIAN SOCIETY.—6 P.M. Dinner at the Albion Tavern, Aldersgate-street, Dr. Sedgwick Saunders in the Chair.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. T. Holmes, "On Recurrent Tumour of the Shoulder; Removal of Scapula and half the Clavicle."—Dr. Geo. Brown, "On a Case of Reduction of Partial Dislocation of Astragalus of long standing."—Mr. Pugin Thornton, "On a Case of Œdema of the Larynx."—Mr. H. G. Trend, "On a Case of Purpura Rheumatica."

Saturday, Feb. 12.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0 4 6	For half a page	£2 12 0
For every additional line ...	0 0 6	For a page	5 0 0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—
Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.